

Homework and Remembering

HOUGHTON MIFFLIN HARCOURT



**M A T H**

# Expressions

Common Core



GRADE

**3**

Volume 1

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**Homework**

Use this chart to practice your 5s count-bys and multiplications. Then have your Homework Helper test you.

	In Order	Mixed Up
<b>5s</b>	$1 \times 5 = 5$	$9 \times 5 = 45$
	$2 \times 5 = 10$	$5 \times 5 = 25$
	$3 \times 5 = 15$	$2 \times 5 = 10$
	$4 \times 5 = 20$	$7 \times 5 = 35$
	$5 \times 5 = 25$	$4 \times 5 = 20$
	$6 \times 5 = 30$	$6 \times 5 = 30$
	$7 \times 5 = 35$	$10 \times 5 = 50$
	$8 \times 5 = 40$	$8 \times 5 = 40$
	$9 \times 5 = 45$	$1 \times 5 = 5$
	$10 \times 5 = 50$	$3 \times 5 = 15$

Solve each equation. Then check your answers at the bottom of this page.

1.  $8 \times 5 = \square$

2.  $9 \bullet 5 = \square$

3.  $5 * 2 = \square$
4.  $6 \times 5 = \square$

5.  $3 \bullet 5 = \square$

6.  $5 \times 4 = \square$
7.  $10 \times 5 = \square$

8.  $5 * 1 = \square$

9.  $6 \times 5 = \square$
10.  $5 * 5 = \square$

11.  $5 \bullet 7 = \square$

12.  $2 * 5 = \square$
13.  $5 * 1 = \square$

14.  $5 \times 10 = \square$

15.  $4 \bullet 5 = \square$
16.  $7 \bullet 5 = \square$

17.  $5 \times 2 = \square$

18.  $5 * 7 = \square$
19.  $5 \times 5 = \square$

20.  $5 * 8 = \square$

21.  $9 \bullet 5 = \square$

1. 40
2. 45
3. 10
4. 30
5. 15
6. 20
7. 50
8. 5
9. 30
10. 25
11. 35
12. 10
13. 5
14. 50
15. 20
16. 35
17. 10
18. 35
19. 25
20. 40
21. 45

**Homework****Study Plan**

Homework Helper

**Write each total.**

$$1. 2 \times (5) = 5 + 5 = \underline{10}$$

$$2. 4 \bullet (5) = 5 + 5 + 5 + 5 = \underline{20}$$

$$3. 6 * (5) = 5 + 5 + 5 + 5 + 5 + 5 = \underline{30}$$

**Write the 5s additions that show each multiplication.****Then write the total.**

$$4. 3 \times (5) = \underline{5 + 5 + 5} = \underline{15}$$

$$5. 5 * (5) = \underline{5 + 5 + 5 + 5 + 5} = \underline{25}$$

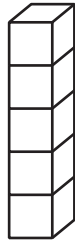
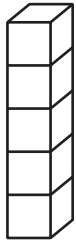
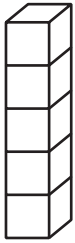
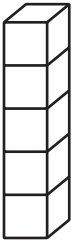
$$6. 1 \bullet (5) = \underline{5} = \underline{5}$$

$$7. 8 \bullet (5) = \underline{5 + 5 + 5 + 5 + 5 + 5 + 5 + 5} = \underline{40}$$

$$8. 7 \times (5) = \underline{5 + 5 + 5 + 5 + 5 + 5 + 5} = \underline{35}$$

# Remembering

Count by 5s to find the total number.



1. 5

1015202530

2. 65

7075808590

3. 30

3540455055

4. 45

5055606570

5. 75

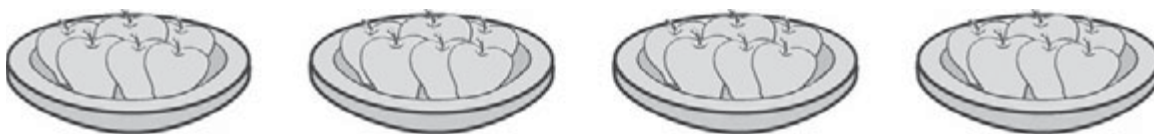
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**6. Stretch Your Thinking** Liam starts at a number and counts by 5s. He counts by 5s six times and is now at the number 75. What number did Liam start counting from? Explain how you know. **Possible answer given.**

Liam starts counting from 45. I know he counts  
by 5s six times to 75, so I can start at 75 and  
count backward by 5s six times.

**Homework****Study Plan**

Homework Helper

**Write a multiplication equation to find the total number.****1. How many apples?**

$$4 \times 6 = 24$$

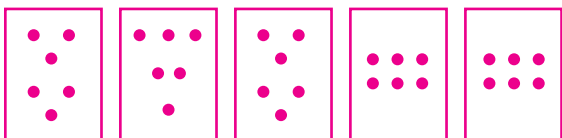
**2. How many lenses?**

$$7 \times 2 = 14$$

**Make a math drawing and label it with a multiplication equation. Then write the answer to the problem.**

**3. Beth put the dinner rolls she baked in 5 bags, with 6 rolls per bag. How many rolls did Beth bake?**

30 rolls



$$5 \times 6 = 30$$

**4. Baya arranged her pennies into 7 piles of 5. How many pennies did she have?**

35 pennies



$$7 \times 5 = 35$$

# Remembering

Write each total.

$$1. 3 \times (5) = 5 + 5 + 5 = \underline{15}$$

$$2. 5 \cdot (5) = 5 + 5 + 5 + 5 + 5 = \underline{25}$$

Write the 5s additions that show each multiplication.  
Then write the total.

$$3. 4 * (5) = \underline{5 + 5 + 5 + 5} = \underline{20}$$

$$4. 6 \times (5) = \underline{5 + 5 + 5 + 5 + 5 + 5} = \underline{30}$$

Write each product.

$$5. 7 \times 5 = \underline{35}$$

$$6. 9 * 5 = \underline{45}$$

$$7. 8 \cdot 5 = \underline{40}$$

$$8. 10 * 5 = \underline{50}$$

$$9. 1 \cdot 5 = \underline{5}$$

$$10. 5 \times 2 = \underline{10}$$

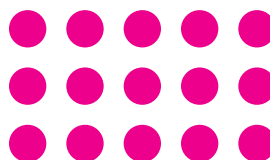
$$11. 5 \cdot 3 = \underline{15}$$

$$12. 5 * 4 = \underline{20}$$

$$13. 5 \times 5 = \underline{25}$$

**14. Stretch Your Thinking** Draw a picture to show  $3 \times 5$ . Explain your drawing, and find the product.

Possible drawing shown. Explanations  
will vary based on drawings. The  
product is 15.





## Homework

## Home Study Sheet A

5s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 5 = 5$	$2 \times 5 = 10$	$10 \div 5 = 2$
$2 \times 5 = 10$	$9 \times 5 = 45$	$35 \div 5 = 7$
$3 \times 5 = 15$	$1 \times 5 = 5$	$50 \div 5 = 10$
$4 \times 5 = 20$	$5 \times 5 = 25$	$5 \div 5 = 1$
$5 \times 5 = 25$	$7 \times 5 = 35$	$20 \div 5 = 4$
$6 \times 5 = 30$	$3 \times 5 = 15$	$15 \div 5 = 3$
$7 \times 5 = 35$	$10 \times 5 = 50$	$30 \div 5 = 6$
$8 \times 5 = 40$	$6 \times 5 = 30$	$40 \div 5 = 8$
$9 \times 5 = 45$	$4 \times 5 = 20$	$25 \div 5 = 5$
$10 \times 5 = 50$	$8 \times 5 = 40$	$45 \div 5 = 9$

2s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 2 = 2$	$7 \times 2 = 14$	$20 \div 2 = 10$
$2 \times 2 = 4$	$1 \times 2 = 2$	$2 \div 2 = 1$
$3 \times 2 = 6$	$3 \times 2 = 6$	$6 \div 2 = 3$
$4 \times 2 = 8$	$5 \times 2 = 10$	$16 \div 2 = 8$
$5 \times 2 = 10$	$6 \times 2 = 12$	$12 \div 2 = 6$
$6 \times 2 = 12$	$8 \times 2 = 16$	$4 \div 2 = 2$
$7 \times 2 = 14$	$2 \times 2 = 4$	$10 \div 2 = 5$
$8 \times 2 = 16$	$10 \times 2 = 20$	$8 \div 2 = 4$
$9 \times 2 = 18$	$4 \times 2 = 8$	$14 \div 2 = 7$
$10 \times 2 = 20$	$9 \times 2 = 18$	$18 \div 2 = 9$

10s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 10 = 10$	$1 \times 10 = 10$	$80 \div 10 = 8$
$2 \times 10 = 20$	$5 \times 10 = 50$	$10 \div 10 = 1$
$3 \times 10 = 30$	$2 \times 10 = 20$	$50 \div 10 = 5$
$4 \times 10 = 40$	$8 \times 10 = 80$	$90 \div 10 = 9$
$5 \times 10 = 50$	$7 \times 10 = 70$	$40 \div 10 = 4$
$6 \times 10 = 60$	$3 \times 10 = 30$	$100 \div 10 = 10$
$7 \times 10 = 70$	$4 \times 10 = 40$	$30 \div 10 = 3$
$8 \times 10 = 80$	$6 \times 10 = 60$	$20 \div 10 = 2$
$9 \times 10 = 90$	$10 \times 10 = 100$	$70 \div 10 = 7$
$10 \times 10 = 100$	$9 \times 10 = 90$	$60 \div 10 = 6$

9s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 9 = 9$	$2 \times 9 = 18$	$81 \div 9 = 9$
$2 \times 9 = 18$	$4 \times 9 = 36$	$18 \div 9 = 2$
$3 \times 9 = 27$	$7 \times 9 = 63$	$36 \div 9 = 4$
$4 \times 9 = 36$	$8 \times 9 = 72$	$9 \div 9 = 1$
$5 \times 9 = 45$	$3 \times 9 = 27$	$54 \div 9 = 6$
$6 \times 9 = 54$	$10 \times 9 = 90$	$27 \div 9 = 3$
$7 \times 9 = 63$	$1 \times 9 = 9$	$63 \div 9 = 7$
$8 \times 9 = 72$	$6 \times 9 = 54$	$72 \div 9 = 8$
$9 \times 9 = 81$	$5 \times 9 = 45$	$90 \div 9 = 10$
$10 \times 9 = 90$	$9 \times 9 = 81$	$45 \div 9 = 5$

Home Signature Sheet

	Count-Bys Homework Helper	Multiplications Homework Helper	Divisions Homework Helper
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

**Homework****Study Plan**

Homework Helper

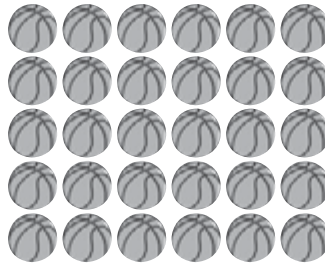
**Write a multiplication equation for each array.**

1. How many muffins?



$$3 \times 4 = 12; 12 \text{ muffins}$$

2. How many basketballs?

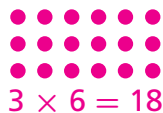


$$5 \times 6 = 30; 30 \text{ basketballs}$$

**Make a math drawing for each problem and label it with a multiplication equation. Then write the answer to the problem.**

3. Ellie arranged her trophies in 3 rows, with 6 trophies in each row. How many trophies does she have?

Possible drawing:



$$3 \times 6 = 18$$

18 trophies

4. Maribel planted a garden with 9 tomato plants in each of 2 rows. How many tomato plants did she plant?

Possible drawing:



$$2 \times 9 = 18$$

18 tomato plants

# Remembering

Write each product.

$$1. 1 * 5 = \boxed{5}$$

$$2. 8 \bullet 5 = \boxed{40}$$

$$3. 5 \times 2 = \boxed{10}$$

$$4. 9 \times 5 = \boxed{45}$$

$$5. 10 * 5 = \boxed{50}$$

$$6. 4 \bullet 5 = \boxed{20}$$

Write a multiplication equation to find the total number.

7. How many cubes?



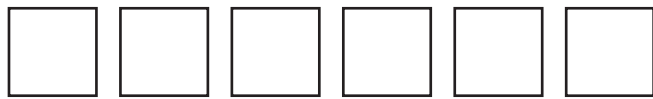
$$2 \times 7 = 14$$

8. How many sides?



$$5 \times 3 = 15$$

9. How many sides?

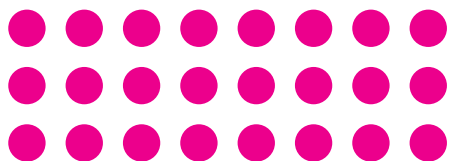


$$6 \times 4 = 24$$

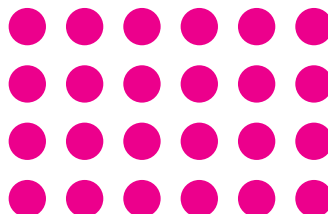
10. **Stretch Your Thinking** Miles has 24 baseball cards.

He wants to display the cards in even rows and columns. Draw two different arrays to show how Miles could display his cards. Label your drawings with a multiplication equation.

Possible drawings and equations are shown.



$$3 \times 8 = 24$$



$$4 \times 6 = 24$$

**Homework**

Use this chart to practice your 5s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	In Order $\times$	Mixed Up $\times$	Mixed Up $\div$
<b>5s</b>	$1 \times 5 = 5$	$4 \times 5 = 20$	$20 \div 5 = 4$
	$2 \times 5 = 10$	$7 \times 5 = 35$	$5 \div 5 = 1$
	$3 \times 5 = 15$	$2 \times 5 = 10$	$50 \div 5 = 10$
	$4 \times 5 = 20$	$5 \times 5 = 25$	$35 \div 5 = 7$
	$5 \times 5 = 25$	$9 \times 5 = 45$	$15 \div 5 = 3$
	$6 \times 5 = 30$	$1 \times 5 = 5$	$45 \div 5 = 9$
	$7 \times 5 = 35$	$10 \times 5 = 50$	$10 \div 5 = 2$
	$8 \times 5 = 40$	$3 \times 5 = 15$	$25 \div 5 = 5$
	$9 \times 5 = 45$	$6 \times 5 = 30$	$40 \div 5 = 8$
	$10 \times 5 = 50$	$8 \times 5 = 40$	$30 \div 5 = 6$

# Homework

Multiply or divide to find the unknown numbers.

Then check your answers at the bottom of this page.

1.  $5 \times 6 = \square$

2.  $45 \div 5 = \square$

3.  $5 \times \square = 35$

4.  $\square \times 5 = 10$

5.  $3 \times 5 = \square$

6.  $50 \div 5 = \square$

7.  $5 \cdot 9 = \square$

8.  $\square \cdot 5 = 20$

9.  $\begin{array}{r} \square \\ 5 \overline{)25} \end{array}$

10.  $5 * \square = 40$

11.  $5 \bullet 5 = \square$

12.  $\frac{35}{5} = \square$

13.  $5 \bullet \square = 15$

14.  $30 \div 5 = \square$

15.  $5 \times \square = 45$

16.  $\square \div 5 = 7$

17.  $\frac{10}{5} = \square$

18.  $5 \bullet 8 = \square$

19.  $\begin{array}{r} \square \\ 5 \overline{)20} \end{array}$

20.  $5 \times \square = 5$

21.  $5 \times \square = 50$

1. 30 2. 9 3. 7 4. 2 5. 15 6. 10 7. 45 8. 4 9. 5 10. 8 11. 25  
12. 7 13. 3 14. 6 15. 9 16. 35 17. 2 18. 40 19. 4 20. 1 21. 10

**Homework****Study Plan**\_\_\_\_\_  
Homework Helper

**Write a multiplication equation and a division equation for each problem. Then solve the problem.**

1. Mandy's Diner has a total of 20 chairs. The chairs are divided equally among 5 tables. How many chairs are at each table?

*Show your work.*

$$5 \times \square = 20; 20 \div 5 = \square; 4 \text{ chairs}$$

2. Tarek divided 30 nickels into 5 piles. He put the same number of nickels in each pile. How many nickels were in each pile?

$$5 \times \square = 30; 30 \div 5 = \square; 6 \text{ nickels}$$

3. A group of singers has 45 members. The singers are arranged in groups of 5 on the stage. How many groups are there?

$$\square \times 5 = 45; 45 \div 5 = \square; 9 \text{ groups}$$

4. Brianna arranged 40 marbles into an array with 5 marbles in each row. How many rows of marbles were in her array?

$$\square \times 5 = 40; 40 \div 5 = \square; 8 \text{ rows}$$

# Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer to the problem.

1. Ann has 5 boxes with 7 crayons in each box. How many crayons does Ann have?

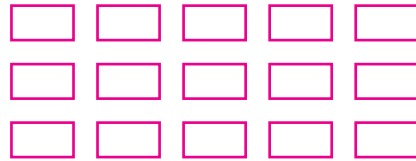
35 crayons



$$5 \times 7 = 35$$

2. Mr. Garcia displays the school trophies in 3 rows of 5. How many trophies does Mr. Garcia display?

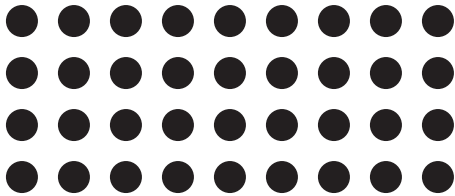
15 trophies



$$3 \times 5 = 15$$

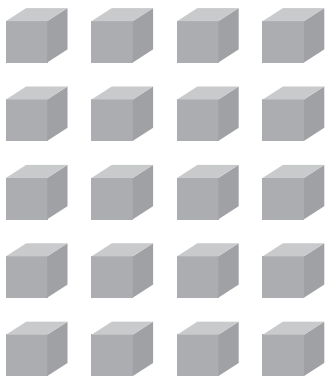
Write a multiplication equation for each array.

3. How many dots?



$$4 \times 9 = 36; 36 \text{ dots}$$

4. How many cubes?



$$5 \times 4 = 20; 20 \text{ cubes}$$

5. **Stretch Your Thinking** Write a real world division problem using 5 as the divisor. Then solve your problem.

Answers will vary. Possible answer: There are 45 stickers in a package.

There are 5 sticker sheets, each with the same number of stickers.

How many stickers are on each sheet?  $45 \div 5 = 9$



**Homework**

Use this chart to practice your 2s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>2s</b>	$1 \times 2 = 2$	$4 \times 2 = 8$	$18 \div 2 = 9$
	$2 \times 2 = 4$	$7 \times 2 = 14$	$6 \div 2 = 3$
	$3 \times 2 = 6$	$2 \times 2 = 4$	$2 \div 2 = 1$
	$4 \times 2 = 8$	$5 \times 2 = 10$	$16 \div 2 = 8$
	$5 \times 2 = 10$	$9 \times 2 = 18$	$14 \div 2 = 7$
	$6 \times 2 = 12$	$1 \times 2 = 2$	$4 \div 2 = 2$
	$7 \times 2 = 14$	$10 \times 2 = 20$	$20 \div 2 = 10$
	$8 \times 2 = 16$	$3 \times 2 = 6$	$8 \div 2 = 4$
	$9 \times 2 = 18$	$6 \times 2 = 12$	$12 \div 2 = 6$
	$10 \times 2 = 20$	$8 \times 2 = 16$	$10 \div 2 = 5$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $2 \times 4 = \square$

2.  $20 \div 5 = \square$

3.  $6 * 2 = \square$
4.  $45 / 5 = \square$

5.  $2 \bullet 10 = \square$

6.  $\frac{20}{2} = \square$
7.  $5 \times 10 = \square$

8.  $16 \div 2 = \square$

9.  $6 \times 5 = \square$
10.  $30 / 5 = \square$

11.  $5 \bullet 7 = \square$

12.  $\square \overline{)18}$
13.  $8 * 2 = \square$

14.  $\frac{25}{5} = \square$

15.  $5 \bullet 4 = \square$
16.  $16 / 2 = \square$

17.  $\square \overline{)10}$

18.  $2 * 7 = \square$
19.  $5 \times 5 = \square$

20.  $14 \div 2 = \square$

21.  $\square \overline{)5} = 7$

1. 8
2. 4
3. 12
4. 9
5. 20
6. 10
7. 50
8. 8
9. 30
10. 6
11. 35
12. 9
13. 16
14. 5
15. 20
16. 8
17. 5
18. 14
19. 25
20. 7
21. 35

**Homework****Home Check Sheet 1: 5s and 2s**

<b>5s Multiplication</b>	<b>5s Divisions</b>	<b>2s Multiplications</b>	<b>2s Divisions</b>
$2 \times 5 = 10$	$30 / 5 = 6$	$4 \times 2 = 8$	$8 / 2 = 4$
$5 \bullet 6 = 30$	$5 \div 5 = 1$	$2 \bullet 8 = 16$	$18 \div 2 = 9$
$5 * 9 = 45$	$15 / 5 = 3$	$1 * 2 = 2$	$2 / 2 = 1$
$4 \times 5 = 20$	$50 \div 5 = 10$	$6 \times 2 = 12$	$16 \div 2 = 8$
$5 \bullet 7 = 35$	$20 / 5 = 4$	$2 \bullet 9 = 18$	$4 / 2 = 2$
$10 * 5 = 50$	$10 \div 5 = 2$	$2 * 2 = 4$	$20 \div 2 = 10$
$1 \times 5 = 5$	$35 / 5 = 7$	$3 \times 2 = 6$	$10 / 2 = 5$
$5 \bullet 3 = 15$	$40 \div 5 = 8$	$2 \bullet 5 = 10$	$12 \div 2 = 6$
$8 * 5 = 40$	$25 / 5 = 5$	$10 * 2 = 20$	$6 / 2 = 3$
$5 \times 5 = 25$	$45 / 5 = 9$	$2 \times 7 = 14$	$14 / 2 = 7$
$5 \bullet 8 = 40$	$20 \div 5 = 4$	$2 \bullet 10 = 20$	$4 \div 2 = 2$
$7 * 5 = 35$	$15 / 5 = 3$	$9 * 2 = 18$	$2 / 2 = 1$
$5 \times 4 = 20$	$30 \div 5 = 6$	$2 \times 6 = 12$	$8 \div 2 = 4$
$6 \bullet 5 = 30$	$25 / 5 = 5$	$8 \bullet 2 = 16$	$6 / 2 = 3$
$5 * 1 = 5$	$10 \div 5 = 2$	$2 * 3 = 6$	$20 \div 2 = 10$
$5 \times 10 = 50$	$45 / 5 = 9$	$2 \times 2 = 4$	$14 / 2 = 7$
$9 \bullet 5 = 45$	$35 \div 5 = 7$	$1 \bullet 2 = 2$	$10 \div 2 = 5$
$5 * 2 = 10$	$50 \div 5 = 10$	$2 * 4 = 8$	$16 \div 2 = 8$
$3 \times 5 = 15$	$40 / 5 = 8$	$5 \times 2 = 10$	$12 / 2 = 6$
$5 \bullet 5 = 25$	$5 \div 5 = 1$	$7 \bullet 2 = 14$	$18 \div 2 = 9$



**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.**

1. Tanya had 14 cups to fill with juice. She put them in 2 equal rows. How many cups were in each row?

$$7 \text{ cups, } 14 \div 2 = \square \text{ or}$$

$$2 \times \square = 14, \square = 7$$

2. Rebecca has 3 pairs of running shoes. She bought new shoelaces for each pair. How many shoelaces did she buy?

$$6 \text{ shoelaces, } 3 \times 2 = \square,$$

$$\square = 6$$

3. Jason served his family dinner. He put 5 carrots on each of the 4 plates. How many carrots did Jason serve in all?

$$20 \text{ carrots, } 4 \times 5 = \square,$$

$$\square = 20$$

4. Olivia filled 8 vases with flowers. She put 5 flowers in each vase. How many flowers did she put in the vases?

$$40 \text{ flowers, } 8 \times 5 = \square,$$

$$\square = 40$$

5. Devon has 30 model airplanes. He put the same number on each of the 5 shelves of his bookcase. How many model airplanes did Devon put on each shelf?

$$6 \text{ model airplanes, } 30 \div 5$$

$$= \square \text{ or } 5 \times \square = 30, \square = 6$$

6. There are 12 eggs in a carton. They are arranged in 2 rows with the same number of eggs in each row. How many eggs are in each row?

$$6 \text{ eggs, } 12 \div 2 = \square \text{ or}$$

$$2 \times \square = 12, \square = 6$$

# Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer to the problem.

1. Kishore has 4 stacks with 3 books in each stack. How many books are there in all?

12 books



$$4 \times 3 = 12$$

2. Cindy had 6 envelopes. She put 2 stamps on each one. How many stamps did she use?

12 stamps



$$6 \times 2 = 12$$

Write a multiplication equation for the array.

3. How many dots?



$$3 \times 6 = 18; 18 \text{ dots}$$

Multiply or divide to find the unknown numbers.

4.  $7 \times 5 = \boxed{35}$

5.  $45 \div 5 = \boxed{9}$

6.  $\boxed{10} \times 5 = 50$

7.  $8 \times 5 = \boxed{40}$

8.  $5 \cdot \boxed{5} = 25$

9.  $\frac{10}{5} = \boxed{2}$

10. **Stretch Your Thinking** Explain how to solve the following problem using division and multiplication. There are 18 students in the classroom. There are 2 students in each group. How many groups of students are there?

Possible answer: I can divide  $18 \div 2 = 9$ . I can multiply  $2 \times 9 = 18$ .

There are 9 groups of students in the classroom.

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.**

1. On a wall, photos are arranged in 2 rows with 7 photos in each row. How many photos are on the wall?

$$14 \text{ photos; } 2 \times 7 = \square, 14$$

2. An orchard has 6 rows of apple trees. Each row has 5 trees. How many apple trees are in the orchard?

$$30 \text{ apple trees; } 6 \times 5 = \square, 30$$

3. Navin arranged his soccer trophies into 5 equal rows. He has 25 trophies. How many are in each row?

$$5 \text{ trophies; } 25 \div 5 = \square \text{ or}$$

$$5 \times \square = 25, 5$$

4. Tickets to the school play cost \$2 each. Mrs. Cortez spent \$16 on tickets. How many tickets did she buy?

$$8 \text{ tickets; } 16 \div 2 = \square \text{ or}$$

$$\square \times 2 = 16, 8$$

5. Jimet solved 20 multiplications. There were 5 multiplications in each row. How many rows of multiplications did she solve?

$$4 \text{ rows; } 20 \div 5 = \square \text{ or}$$

$$\square \times 5 = 20, 4$$

6. Josh has 2 peaches for each of his 6 friends. How many peaches does he have?

$$12 \text{ peaches; } 6 \times 2 = \square, 12$$

# Remembering

Write a multiplication equation for each array.

1. How many dots?



$$5 \times 3 = 15; 15 \text{ dots}$$

2. How many dots?



$$4 \times 2 = 8; 8 \text{ dots}$$

Multiply or divide to find the unknown numbers.

3.  $2 \times 7 = \boxed{14}$

4.  $5 \cdot \boxed{6} = 30$

5.  $\begin{array}{r} \boxed{1} \\ 5 \overline{)5} \end{array}$

6.  $25 \div 5 = \boxed{5}$

7.  $4 * 5 = \boxed{20}$

8.  $\frac{35}{5} = \boxed{7}$

Write an equation and solve the problem.

9. There are 10 sunglasses on the display. Each has 2 lenses. How many lenses are there?

20 lenses,  $10 \times 2 = \boxed{\phantom{00}},$

$\boxed{\phantom{00}} = 20$

10. Bryce draws 40 stars on his poster. He draws 5 rows and puts the same number in each row. How many stars are in each row?

8 stars,  $40 \div 5 = \boxed{\phantom{00}}$  or

$5 \times \boxed{\phantom{00}} = 40, \boxed{\phantom{00}} = 8$

11. **Stretch Your Thinking** Sarah has 10 stuffed animals.

Explain two different ways she can group the stuffed animals so each group has the same number and no stuffed animals are left over.

Possible answer: Sarah can group 5 stuffed animals  
in 2 groups, or she can group 2 animals in 5 groups.



**Homework**

Use this chart to practice your 10s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>10s</b>	$1 \times 10 = 10$	$4 \times 10 = 40$	$100 \div 10 = 10$
	$2 \times 10 = 20$	$7 \times 10 = 70$	$20 \div 10 = 2$
	$3 \times 10 = 30$	$2 \times 10 = 20$	$40 \div 10 = 4$
	$4 \times 10 = 40$	$5 \times 10 = 50$	$70 \div 10 = 7$
	$5 \times 10 = 50$	$9 \times 10 = 90$	$30 \div 10 = 3$
	$6 \times 10 = 60$	$1 \times 10 = 10$	$60 \div 10 = 6$
	$7 \times 10 = 70$	$10 \times 10 = 100$	$80 \div 10 = 8$
	$8 \times 10 = 80$	$3 \times 10 = 30$	$10 \div 10 = 1$
	$9 \times 10 = 90$	$6 \times 10 = 60$	$50 \div 10 = 5$
	$10 \times 10 = 100$	$8 \times 10 = 80$	$90 \div 10 = 9$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $2 \times 10 = \square$

2.  $15 \div 5 = \square$

3.  $4 \times 2 = \square$
4.  $80 \div 10 = \square$

5.  $5 \cdot \square = 40$

6.  $\frac{60}{10} = \square$
7.  $\square \times 5 = 30$

8.  $\frac{20}{2} = \square$

9.  $6 \times 10 = \square$
10.  $25 \div 5 = \square$

11.  $10 \cdot 7 = \square$

12.  $14 \div 2 = \square$
13.  $9 \times 2 = \square$

14.  $\frac{45}{5} = \square$

15.  $10 \cdot 4 = \square$
16.  $\begin{array}{r} \square \\ 2 \overline{)20} \end{array}$

17.  $70 \div 10 = \square$

18.  $9 \times \square = 18$
19.  $\square \times 5 = 35$

20.  $\frac{\square}{3} = 10$

21.  $\square \cdot 2 = 16$

1. 20 2. 3 3. 8 4. 8 5. 8 6. 6 7. 6 8. 10 9. 60 10. 5 11. 70

12. 7 13. 18 14. 9 15. 40 16. 10 17. 7 18. 2 19. 7 20. 30 21. 8

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.** Equations and letters for variables may vary. Samples are given.

1. Wendy has 100 cents. She wants to buy some marbles that cost 10 cents each. How many marbles can she buy?

$$\underline{100 \div 10 = m \text{ or } m \times 10 = 100, \\ m = 10; 10 \text{ marbles}}$$

2. Natalie turned off 2 lights in each of the 6 rooms of her house. How many lights did she turn off?

$$\underline{6 \times 2 = l, l = 12; 12 \text{ lights}}$$

3. Luis has 18 single socks. How many pairs of socks does he have?

$$\underline{18 \div 2 = p \text{ or } p \times 2 = 18, \\ p = 9; 9 \text{ pairs}}$$

4. Lana has 9 nickels. She wants to buy an apple that costs 40 cents. Does she have enough money?

$$\underline{9 \times 5 = c; c = 45; \text{yes}}$$

5. Annabelle had 20 crayons. She gave 5 of them to each of her sisters. How many sisters does Annabelle have?

$$\underline{20 \div 5 = s \text{ or } s \times 5 = 20, \\ s = 4; 4 \text{ sisters}}$$

6. Harvey wrote letters to 10 of his friends. Each letter was 3 pages long. How many pages did Harvey write?

$$\underline{10 \times 3 = p, p = 30; 30 \text{ pages}}$$

**Complete the table.**

7.	Number of Nickels	1	3	5	8	9	10
	Total Amount	5¢	15¢	25¢	40¢	45¢	50¢

# Remembering

Write a multiplication equation and a division equation for each problem. Then solve the problem.

*Show your work.*

1. Tara folds 25 sweaters. She puts the same number of sweaters in each pile. There are 5 piles. How many sweaters are in each pile?

$$5 \times \boxed{5} = 25; 25 \div 5 = \boxed{5}; 5 \text{ sweaters}$$

2. Mr. McBride orders 30 new pencils. There are 5 pencils in each box. How many boxes of pencils does Mr. McBride order?

$$\boxed{6} \times 5 = 30; 30 \div 5 = \boxed{6}; 6 \text{ boxes}$$

Multiply or divide to find the unknown numbers.

3.  $5 \cdot \boxed{9} = 45$

4.  $2 \overline{) \overset{\boxed{6}}{12}}$

5.  $14 \div 2 = \boxed{7}$

6.  $\boxed{4} \cdot 5 = 20$

7.  $2 \times \boxed{4} = 8$

8.  $\frac{16}{2} = \boxed{8}$

Write an equation and solve the problem.

9. The books were put in 5 equal rows on display. There were 45 books. How many are in each row?

9 books;  $45 \div 5 = \boxed{9}$  or  $5 \times \boxed{9} = 45, 9$

10. The class lined up in 2 rows with 8 students in each row. How many students are in the class?

16 students;  $2 \times 8 = \boxed{16}, 16$

11. **Stretch Your Thinking** Explain how you know if a number can be divided by 10 evenly.

If the number has a 0 in the ones place and is 10 or more, I know it can be divided by 10 evenly.

**Homework**

Use this chart to practice your 9s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>9s</b>	$1 \times 9 = 9$	$4 \times 9 = 36$	$63 \div 9 = 7$
	$2 \times 9 = 18$	$7 \times 9 = 63$	$9 \div 9 = 1$
	$3 \times 9 = 27$	$2 \times 9 = 18$	$54 \div 9 = 6$
	$4 \times 9 = 36$	$5 \times 9 = 45$	$18 \div 9 = 2$
	$5 \times 9 = 45$	$9 \times 9 = 81$	$90 \div 9 = 10$
	$6 \times 9 = 54$	$1 \times 9 = 9$	$81 \div 9 = 9$
	$7 \times 9 = 63$	$10 \times 9 = 90$	$45 \div 9 = 5$
	$8 \times 9 = 72$	$3 \times 9 = 27$	$27 \div 9 = 3$
	$9 \times 9 = 81$	$6 \times 9 = 54$	$36 \div 9 = 4$
	$10 \times 9 = 90$	$8 \times 9 = 72$	$72 \div 9 = 8$

# Homework

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $2 \times 9 = \square$

2.  $18 \div 2 = \square$

3.  $6 * \square = 12$

4.  $40 / 5 = \square$

5.  $10 \bullet 8 = \square$

6.  $\frac{27}{9} = \square$

7.  $\square \times 5 = 40$

8.  $2 \overline{) \square 14}$

9.  $9 \times 10 = \square$

10.  $\frac{60}{10} = \square$

11.  $10 \bullet 7 = \square$

12.  $72 \div 9 = \square$

13.  $5 * 9 = \square$

14.  $\frac{20}{2} = \square$

15.  $9 \bullet \square = 36$

16.  $10 / 2 = \square$

17.  $63 \div 9 = \square$

18.  $9 * 9 = \square$

19.  $5 \times 5 = \square$

20.  $5 \overline{) \square 30}$

21.  $9 \times 3 = \square$

1. 18 2. 9 3. 2 4. 8 5. 80 6. 3 7. 8 8. 7 9. 90 10. 6 11. 70  
 12. 8 13. 45 14. 10 15. 4 16. 5 17. 7 18. 81 19. 25 20. 6 21. 27

**Homework****Home Check Sheet 2: 10s and 9s**

<b>10s Multiplications</b>	<b>10s Divisions</b>	<b>9s Multiplications</b>	<b>9s Divisions</b>
$9 \times 10 = 90$	$100 \div 10 = 10$	$3 \times 9 = 27$	$27 \div 9 = 3$
$10 \bullet 3 = 30$	$50 \div 10 = 5$	$9 \bullet 7 = 63$	$9 \div 9 = 1$
$10 * 6 = 60$	$70 \div 10 = 7$	$10 * 9 = 90$	$81 \div 9 = 9$
$1 \times 10 = 10$	$40 \div 10 = 4$	$5 \times 9 = 45$	$45 \div 9 = 5$
$10 \bullet 4 = 40$	$80 \div 10 = 8$	$9 \bullet 8 = 72$	$90 \div 9 = 10$
$10 * 7 = 70$	$60 \div 10 = 6$	$9 * 1 = 9$	$36 \div 9 = 4$
$8 \times 10 = 80$	$10 \div 10 = 1$	$2 \times 9 = 18$	$18 \div 9 = 2$
$10 \bullet 10 = 100$	$20 \div 10 = 2$	$9 \bullet 9 = 81$	$63 \div 9 = 7$
$5 * 10 = 50$	$90 \div 10 = 9$	$6 * 9 = 54$	$54 \div 9 = 6$
$10 \times 2 = 20$	$30 \div 10 = 3$	$9 \times 4 = 36$	$72 \div 9 = 8$
$10 \bullet 5 = 50$	$80 \div 10 = 8$	$9 \bullet 5 = 45$	$27 \div 9 = 3$
$4 * 10 = 40$	$70 \div 10 = 7$	$4 * 9 = 36$	$45 \div 9 = 5$
$10 \times 1 = 10$	$100 \div 10 = 10$	$9 \times 1 = 9$	$63 \div 9 = 7$
$3 \bullet 10 = 30$	$90 \div 10 = 9$	$3 \bullet 9 = 27$	$72 \div 9 = 8$
$10 * 8 = 80$	$60 \div 10 = 6$	$9 * 8 = 72$	$54 \div 9 = 6$
$7 \times 10 = 70$	$30 \div 10 = 3$	$7 \times 9 = 63$	$18 \div 9 = 2$
$6 \bullet 10 = 60$	$10 \div 10 = 1$	$6 \bullet 9 = 54$	$90 \div 9 = 10$
$10 * 9 = 90$	$40 \div 10 = 4$	$9 * 9 = 81$	$9 \div 9 = 1$
$10 \times 10 = 100$	$20 \div 10 = 2$	$10 \times 9 = 90$	$36 \div 9 = 4$
$2 \bullet 10 = 20$	$50 \div 10 = 5$	$2 \bullet 9 = 18$	$81 \div 9 = 9$





**Homework****Study Plan**

Homework Helper

**Write an equation for each situation. Then solve** Equations and letters for variables may vary. Samples are given.

1. The pet store has 54 birds. There are 9 birds in each cage. How many cages are there?

*Show your work.*

$$54 \div 9 = c \text{ or } c \times 9 = 54; c = 6; 6 \text{ cages}$$

2. George told 2 stories each night of the camping trip. The camping trip was 3 nights long. How many stories did George tell?

$$3 \times 2 = s; s = 6; 6 \text{ stories}$$

3. LaShawna blew up 40 balloons for a party. She made 10 equal bunches of balloons to put on the tables. How many balloons were in each bunch?

$$40 \div 10 = b \text{ or } 10 \times b = 40; b = 4; 4 \text{ balloons}$$

4. There are 4 floors in Redville City Hall. Every floor has 9 offices. How many offices are in the building?

$$4 \times 9 = o; o = 36; 36 \text{ offices}$$

5. Brigitte has 15 CDs. She can put 5 CDs in the CD player at one time. How many times does she have to change the CDs to listen to all of them?

$$15 \div 5 = t; \text{ or } t \times 5 = 15; t = 3; 3 \text{ times}$$

# Remembering

Multiply or divide to find the unknown numbers.

1.  $\frac{40}{5} = \boxed{8}$

2.  $2 \times \boxed{9} = 18$

3.  $5 \cdot 5 = \boxed{25}$

4.  $15 \div 5 = \boxed{3}$

5.  $\boxed{10} \cdot 2 = 20$

6.  $\begin{array}{r} \boxed{10} \\ 2 \overline{)20} \end{array}$

Write an equation and solve the problem.

7. The parking lot has 45 cars.  
There are 5 cars in each row.  
How many rows of cars are there?

9 rows;  $45 \div 5 = \boxed{\phantom{00}}$  or  $\boxed{\phantom{00}} \times 5 = 45$ , 9

8. A garden has 2 rows of tomato plants. Each row has 8 tomato plants. How many tomato plants are in the garden?

16 tomato plants;  $2 \times 8 = \boxed{\phantom{00}}$ , 16

9. The museum has 20 plaques hanging on the wall. The plaques are in 2 equal rows. How many plaques are in each row?

10 plaques;  $20 \div 2 = \boxed{\phantom{00}}$  or  $2 \times \boxed{\phantom{00}} = 20$ , 10

10. Seven children each show 5 fingers. How many fingers are being shown?

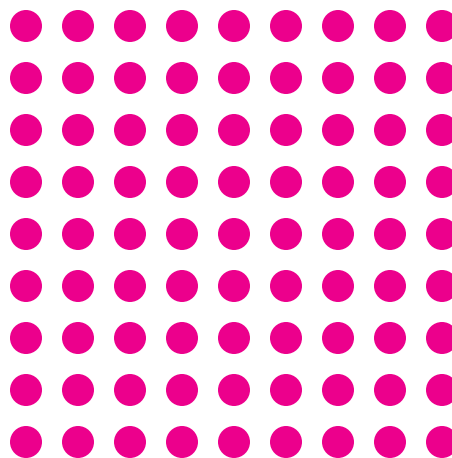
35 fingers;  $7 \times 5 = \boxed{\phantom{00}}$ , 35

Complete the table.

11. Number of Dimes	1	3	5	7	9
Total Amount	10 ¢	30 ¢	50¢	70 ¢	90¢

12. **Stretch Your Thinking** The music teacher wants to line up the students to form an equal number of rows and columns for a performance. The music teacher wants 9 rows. Draw an array to show how the students will be lined up for the performance. How many students will there be?

81 students



**Homework****Home Check Sheet 3: 2s, 5s, 9s, and 10s**

<b>2s, 5s, 9s, 10s Multiplications</b>	<b>2s, 5s, 9s, 10s Multiplications</b>	<b>2s, 5s, 9s, 10s Divisions</b>	<b>2s, 5s, 9s, 10s Divisions</b>
$2 \times 10 = 20$	$5 \times 10 = 50$	$18 / 2 = 9$	$36 / 9 = 4$
$10 \bullet 5 = 50$	$10 \bullet 9 = 90$	$50 \div 5 = 10$	$70 \div 10 = 7$
$9 * 6 = 54$	$4 * 10 = 40$	$72 / 9 = 8$	$18 / 2 = 9$
$7 \times 10 = 70$	$2 \times 9 = 18$	$60 \div 10 = 6$	$45 \div 5 = 9$
$2 \bullet 3 = 6$	$5 \bullet 3 = 15$	$12 / 2 = 6$	$45 / 9 = 5$
$5 * 7 = 35$	$6 * 9 = 54$	$30 \div 5 = 6$	$30 \div 10 = 3$
$9 \times 10 = 90$	$10 \times 3 = 30$	$18 / 9 = 2$	$6 / 2 = 3$
$6 \bullet 10 = 60$	$3 \bullet 2 = 6$	$50 \div 10 = 5$	$50 \div 5 = 10$
$8 * 2 = 16$	$5 * 8 = 40$	$14 / 2 = 7$	$27 / 9 = 3$
$5 \times 6 = 30$	$9 \times 9 = 81$	$25 / 5 = 5$	$70 / 10 = 7$
$9 \bullet 5 = 45$	$10 \bullet 4 = 40$	$81 \div 9 = 9$	$20 \div 2 = 10$
$8 * 10 = 80$	$9 * 2 = 18$	$20 / 10 = 2$	$45 / 5 = 9$
$2 \times 1 = 2$	$5 \times 1 = 5$	$8 \div 2 = 4$	$54 \div 9 = 6$
$3 \bullet 5 = 15$	$9 \bullet 6 = 54$	$45 / 5 = 9$	$80 / 10 = 8$
$4 * 9 = 36$	$10 * 1 = 10$	$63 \div 9 = 7$	$16 \div 2 = 8$
$3 \times 10 = 30$	$7 \times 2 = 14$	$30 / 10 = 3$	$15 / 5 = 3$
$2 \bullet 6 = 12$	$6 \bullet 5 = 30$	$10 \div 2 = 5$	$90 \div 9 = 10$
$4 * 5 = 20$	$8 * 9 = 72$	$40 \div 5 = 8$	$100 \div 10 = 10$
$9 \times 7 = 63$	$10 \times 6 = 60$	$9 / 9 = 1$	$12 / 2 = 6$
$1 \bullet 10 = 10$	$2 \bullet 8 = 16$	$50 \div 10 = 5$	$35 \div 5 = 7$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $5 \times 6 = \square$

2.  $50 \div 10 = \square$

3.  $6 * 9 = \square$
4.  $12 / 2 = \square$

5.  $9 \times \square = 72$

6.  $\frac{14}{2} = \square$
7.  $9 \bullet 5 = \square$

8.  $15 \div 5 = \square$

9.  $7 \times 2 = \square$
10.  $25 / 5 = \square$

11.  $10 \bullet \square = 40$

12.  $\begin{array}{r} \square \\ 9 \overline{)27} \end{array}$
13.  $8 * 5 = \square$

14.  $\frac{81}{9} = \square$

15.  $7 \bullet \square = 35$
16.  $\begin{array}{r} \square \\ 2 \overline{)20} \end{array}$

17.  $10 \div \square = 5$

18.  $2 * 7 = \square$
19.  $30 \div 5 = \square$

20.  $2 \times 7 = \square$

21.  $18 / 2 = \square$

12. 3 13. 40 14. 9 15. 5 16. 10 17. 2 18. 14 19. 6 20. 14 21. 9

1. 30 2. 5 3. 54 4. 6 5. 8 6. 7 7. 45 8. 3 9. 14 10. 5 11. 4

**Homework****Study Plan**

Homework Helper

Write an equation for each situation. Then solve. Equations and letters for the problem. variables may vary. Samples are given.

1. Quinn rode his bike 35 miles. He stopped for water every 5 miles. How many times did Quinn stop for water?

$$35 \div 5 = t \text{ or}$$

$$t \times 5 = 35; t = 7; 7 \text{ times}$$

2. Roy had 12 bottles of juice. He put them in the refrigerator in 2 rows. How many bottles were in each row?

$$12 \div 2 = b \text{ or}$$

$$2 \times b = 12; b = 6; 6 \text{ bottles}$$

3. Melinda has 5 cousins. She called each one on the phone 4 times this month. How many phone calls did she make to her cousins this month?

$$5 \times 4 = c; c = 20; 20 \text{ phone calls}$$

4. Janelle won 27 tickets at the fair. She traded the tickets for 9 prizes. Each prize was worth the same number of tickets. How many tickets was each prize worth?

$$27 \div 9 = t \text{ or}$$

$$9 \times t = 27; t = 3; 3 \text{ tickets}$$

5. Eric had 2 picnic baskets. He put 7 apples in each one. How many apples did he put into the picnic baskets?

$$2 \times 7 = a \text{ or}$$

$$a \div 2 = 7; a = 14; 14 \text{ apples}$$

6. Grace has read 2 chapters in each of her 9 books. How many chapters has she read in all?

$$2 \times 9 = c \text{ or } c \div 2 = 9;$$

$$c = 18; 18 \text{ chapters}$$

# Remembering

Write an equation and solve the problem.

1. Maria wants some pens that cost \$2 each. She spends \$12 on pens. How many pens does she buy?

6 pens;  $12 \div 2 = \boxed{6}$  or  $\boxed{6} \times 2 = 12$ , 6

2. Mrs. Lee has 5 crayons for each of her 10 students. How many crayons does Mrs. Lee have?

50 crayons;  $10 \times 5 = \boxed{50}$ , 50

Multiply or divide to find the unknown numbers.

3.  $5 \cdot 1 = \boxed{5}$

4.  $2 \times \boxed{4} = 8$

5.  $\frac{90}{10} = \boxed{9}$

6.  $30 \div 10 = \boxed{3}$

7.  $\boxed{7} \overline{)14}$

8.  $\boxed{7} * 5 = 35$

Write an equation and solve the problem. Equations and letters for variables may vary. Samples are given.

9. The art teacher has 63 paintbrushes. There are 9 paintbrushes in each box. How many boxes are there?

$63 \div 9 = b$  or  $b \times 9 = 63$ ;  $b = 7$ ; 7 boxes

10. There are 8 plates. Jamie puts 9 strawberries on each plate. How many strawberries are on the plates?

$8 \times 9 = s$ ;  $s = 72$ ; 72 strawberries

11. Mr. Kim receives an order of 30 new books for the media center. He displays the same number of books on each of 5 shelves. How many books are on each shelf?

$30 \div 5 = b$  or  $5 \times b = 30$ ;  $b = 6$ ; 6 books

12. **Stretch Your Thinking** Write a word problem using 9 and 10 as factors. Write an equation to solve your problem.

Possible answer: My mom cuts 9 apples. Each apple is cut into 10 slices. How many slices of apples does my mom cut?

$9 \times 10 = s$ ; 90 slices of apples

**Homework**

Use this chart to practice your 3s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>3s</b>	$1 \times 3 = 3$	$3 \times 3 = 9$	$27 \div 3 = 9$
	$2 \times 3 = 6$	$5 \times 3 = 15$	$21 \div 3 = 7$
	$3 \times 3 = 9$	$1 \times 3 = 3$	$3 \div 3 = 1$
	$4 \times 3 = 12$	$8 \times 3 = 24$	$9 \div 3 = 3$
	$5 \times 3 = 15$	$2 \times 3 = 6$	$30 \div 3 = 10$
	$6 \times 3 = 18$	$9 \times 3 = 27$	$24 \div 3 = 8$
	$7 \times 3 = 21$	$7 \times 3 = 21$	$12 \div 3 = 4$
	$8 \times 3 = 24$	$10 \times 3 = 30$	$6 \div 3 = 2$
	$9 \times 3 = 27$	$6 \times 3 = 18$	$15 \div 3 = 5$
	$10 \times 3 = 30$	$4 \times 3 = 12$	$18 \div 3 = 6$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $6 \times 3 = \square$

2.  $3 \overline{) \square 27}$

3.  $2 * \square = 18$
4.  $18 / 9 = \square$

5.  $3 \times \square = 30$

6.  $\frac{15}{3} = \square$
7.  $9 \bullet 8 = \square$

8.  $50 \div 10 = \square$

9.  $2 \times 2 = \square$
10.  $35 / 5 = \square$

11.  $4 \bullet 10 = \square$

12.  $14 \div 2 = \square$
13.  $8 * 3 = \square$

14.  $\frac{63}{9} = \square$

15.  $5 \bullet \square = 35$
16.  $9 \overline{) \square 27}$

17.  $10 \div \square = 2$

18.  $\square * 9 = 18$
19.  $5 \times 9 = \square$

20.  $81 \div \square = 9$

21.  $14 / 2 = \square$

1. 18

2. 9

3. 9

4. 2

5. 10

6. 5

7. 72

8. 5

9. 4

10. 7

11. 40
12. 7

13. 24

14. 7

15. 7

16. 3

17. 5

18. 2

19. 45

20. 9

21. 7



**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.** Equations and letters for variables may vary. Samples are given.

1. Greg has 3 hats. He has worn each one 4 times this year. How many times this year has he worn a hat?

$$3 \times 4 = t, t = 12; 12 \text{ times}$$

2. Keenan has won 24 award ribbons. He hung them on his wall in 3 rows, with the same number of ribbons in each row. How many ribbons are in each row?

$$24 \div 3 = r \text{ or } 3 \times r = 24, \\ r = 8; 8 \text{ ribbons}$$

3. Mai went to the movies 9 times this month. She paid 4 dollars to see each movie. How much did she spend in all?

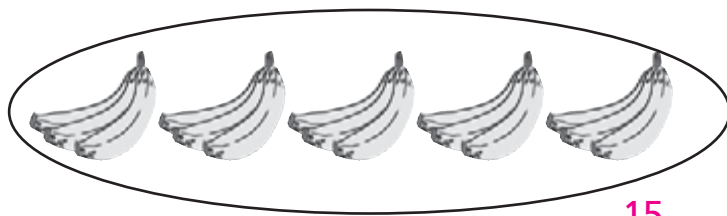
$$9 \times 4 = d, d = 36; \$36$$

4. Tess planted 45 tomato seeds in her garden. She planted them in an array with 9 rows. How many seeds were in each row?

$$45 \div 9 = s \text{ or } 9 \times s = 45, \\ s = 5; 5 \text{ seeds}$$

**Find the total number by starting with the fifth count-by and counting from there.**

5. How many bananas are in these 9 bunches?



15



18

21

24

27

## Remembering

Multiply or divide to find the unknown numbers.

1.  $2 \cdot 2 = \boxed{4}$

2.  $10 \times \boxed{7} = 70$

3.  $\frac{36}{9} = \boxed{4}$

4.  $\boxed{8} * 9 = 72$

5.  $20 \div 10 = \boxed{2}$

6.  $\boxed{4} * 10 = 40$

Write an equation for each situation. Then solve the problem.  
Equations and letters for variables may vary. Samples are given.

7. The museum has 81 pictures displayed. There are 9 pictures hanging in each room. How many rooms are there?

$81 \div 9 = r$  or  $r \times 9 = 81$ ;  $r = 9$ ; 9 rooms

8. Brian has 10 friends at his party. He gives each friend 5 baseball cards. How many baseball cards does he give his friends?

$10 \times 5 = b$ ;  $b = 50$ ; 50 baseball cards

9. **Stretch Your Thinking** Anita wants to buy a box of glitter packets to divide evenly among her three art classes. She doesn't want any glitter packets left over. Which box of glitter packets should Anita buy?



Sample response: She should buy the box marked 27 packets because it is the only number that you can divide by 3 with none left over. She can make 3 groups of 9.

$$2 \times 2$$

$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \times 4 \\ 4 \times 2 \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \times 6 \\ 6 \times 2 \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \times 8 \\ 8 \times 2 \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$10 = 2 \times 5$$

$$10 = 5 \times 2$$

$$\begin{array}{r} 5 \\ 10 \\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \end{array}$$

$$\begin{array}{c} 5 \\ 2 \times 10 \end{array}$$

$$\begin{array}{r} 2 \quad 4 \\ \times 4 \quad \times 2 \\ \hline 8 \quad 8 \\ 2 \quad 4 \quad 4 \quad 8 \\ 6 \quad 8 \end{array}$$

$$\begin{array}{c} 2 \\ 4 \times 8 \end{array}$$

$$6 = 2 \times 3$$

$$6 = 3 \times 2$$

$$\begin{array}{r} 3 \quad 2 \\ 6 \quad 4 \\ 6 \end{array}$$

$$\begin{array}{c} 3 \\ 2 \times 6 \end{array}$$

$$\begin{array}{r} 2 \\ \times 2 \\ \hline 4 \\ 2 \quad 4 \end{array}$$

$$\begin{array}{c} 2 \\ 2 \times 4 \end{array}$$

$$18 = 2 \times 9$$

$$18 = 9 \times 2$$

$$\begin{array}{r} 9 \quad 2 \\ 18 \quad 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \end{array}$$

$$\begin{array}{c} 9 \\ 2 \times 18 \end{array}$$

$$\begin{array}{r} 2 \quad 8 \\ \times 8 \quad \times 2 \\ \hline 16 \quad 16 \\ 8 \quad 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \quad 14 \quad 16 \end{array}$$

$$\begin{array}{c} 2 \\ 8 \times 16 \end{array}$$

$$14 = 2 \times 7$$

$$14 = 7 \times 2$$

$$\begin{array}{r} 7 \quad 2 \\ 14 \quad 4 \\ 6 \quad 8 \quad 10 \\ 12 \quad 14 \end{array}$$

$$\begin{array}{c} 7 \\ 2 \times 14 \end{array}$$

$$\begin{array}{r} 2 \quad 6 \\ \times 6 \quad \times 2 \\ \hline 12 \quad 12 \\ 6 \quad 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \end{array}$$

$$\begin{array}{c} 2 \\ 6 \times 12 \end{array}$$

$$3 \times 3$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

$$3 \times 5$$

$$5 \times 3$$

$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

$$3 \times 7$$

$$7 \times 3$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$3 \times 9$$

$$9 \times 3$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$18 = 3 \times 6$$

$$18 = 6 \times 3$$

$$\begin{array}{r} 6 \\ 12 \\ 18 \\ 12 \\ 15 \\ 18 \end{array}$$

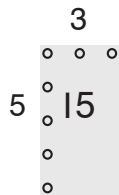


$$3 \times 5$$

$$\times 3$$

$$15$$

$$\begin{array}{r} 5 \\ 10 \\ 15 \\ 3 \\ 6 \\ 9 \\ 12 \\ 15 \end{array}$$



$$12 = 3 \times 4$$

$$12 = 4 \times 3$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 3 \\ 6 \\ 9 \\ 12 \end{array}$$

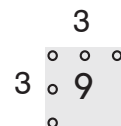


$$3 \times 3$$

$$\times 3$$

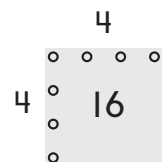
$$9$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \end{array}$$



$$16 = 4 \times 4$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 16 \end{array}$$

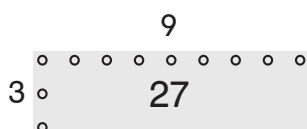


$$3 \times 9$$

$$\times 3$$

$$27$$

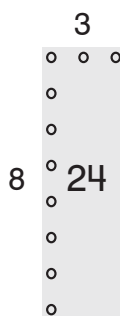
$$\begin{array}{r} 9 \\ 18 \\ 27 \\ 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \\ 27 \end{array}$$



$$24 = 3 \times 8$$

$$24 = 8 \times 3$$

$$\begin{array}{r} 8 \\ 16 \\ 24 \\ 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \end{array}$$



$$3 \times 7$$

$$\times 3$$

$$21$$

$$\begin{array}{r} 7 \\ 14 \\ 21 \\ 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \end{array}$$



$$\begin{array}{r} 4 \times 5 \\ 5 \times 4 \end{array}$$

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \times 7 \\ 7 \times 4 \end{array}$$

$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \times 9 \\ 9 \times 4 \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

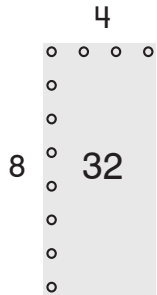
$$\begin{array}{r} 5 \times 6 \\ 6 \times 5 \end{array}$$

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

$$32 = 4 \times 8$$

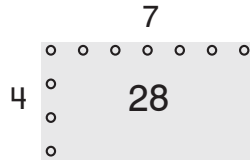
$$32 = 8 \times 4$$

8	4
16	8
24	12
32	16
	20
	24
	28
	32



4	7
$\times 7$	$\times 4$
28	28

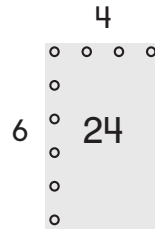
7	4
14	8
21	12
28	16
	20
	24
	28



$$24 = 4 \times 6$$

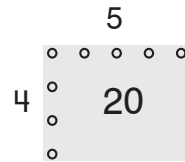
$$24 = 6 \times 4$$

6	4
12	8
18	12
24	16
	20
	24



4	5
$\times 5$	$\times 4$
20	20

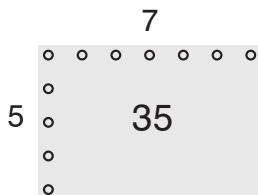
5	4
10	8
15	12
20	16
	20



$$35 = 5 \times 7$$

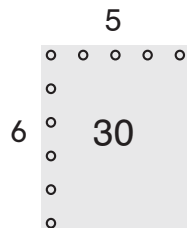
$$35 = 7 \times 5$$

7	5
14	10
21	15
28	20
35	25
	30
	35



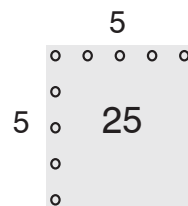
5	6
$\times 6$	$\times 5$
30	30

6	5
12	10
18	15
24	20
30	25
	30



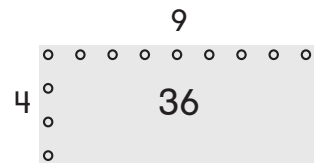
$$25 = 5 \times 5$$

5
10
15
20
25



4	9
$\times 9$	$\times 4$
36	36

9	4
18	8
27	12
36	16
	20
	24
	28
	32
	36





$$\begin{array}{r} 5 \times 8 \\ 8 \times 5 \end{array}$$

$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$6 \times 6$$

$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \times 8 \\ 8 \times 6 \end{array}$$

$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

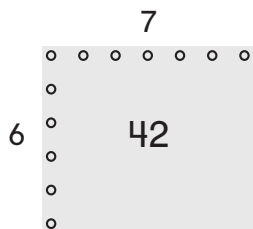
$$7 \times 7$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$42 = 7 \times 6$$

$$42 = 6 \times 7$$

6	7
12	14
18	21
24	28
30	35
36	42
42	



$$6$$

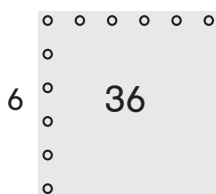
$$\times 6$$

$$\hline 36$$

6
12
18
24
30

$$36$$

$$6$$



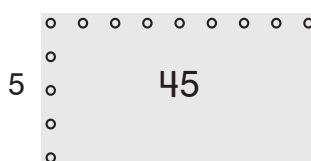
$$45 = 9 \times 5$$

$$45 = 5 \times 9$$

5	9
10	18
15	27
20	36
25	45

30
35
40
45

$$9$$



$$8$$

$$5$$

$$\times 5$$

$$\hline 40$$

$$\times 8$$

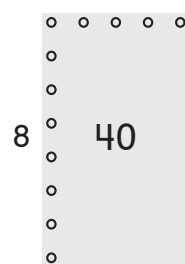
$$\hline 40$$

5
10
15
20
25

8
16
24
32
40

30
35
40
45

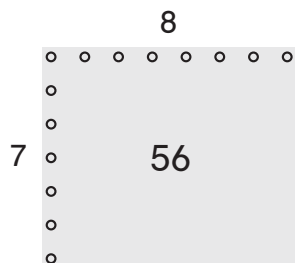
$$5$$



$$56 = 7 \times 8$$

$$56 = 8 \times 7$$

8	7
16	14
24	21
32	28
40	35
48	42
56	49
	56



$$7$$

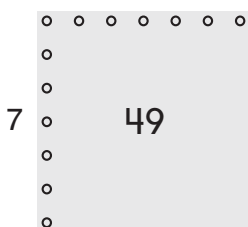
$$\times 7$$

$$\hline 49$$

7
14
21
28
35

$$49$$

$$7$$



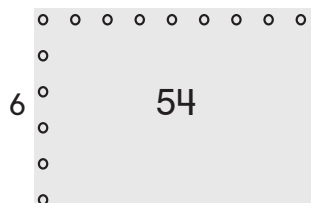
$$54 = 9 \times 6$$

$$54 = 6 \times 9$$

6	9
12	18
18	27
24	36
30	45

36	54
42	
48	
54	

$$9$$



$$6$$

$$8$$

$$\times 8$$

$$\hline 48$$

$$\times 6$$

$$\hline 48$$

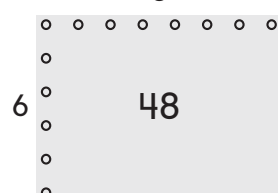
6
12
18
24
30

8
16
24
32
40

36
42
48

$$48$$

$$8$$



$$\begin{array}{r} 7 \times 9 \\ 9 \times 7 \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

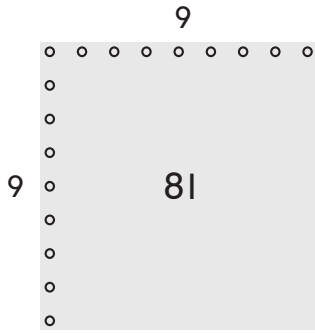
$$\begin{array}{r} 9 \times 8 \\ 8 \times 9 \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$81 = 9 \times 9$$

9  
18  
27  
36  
45

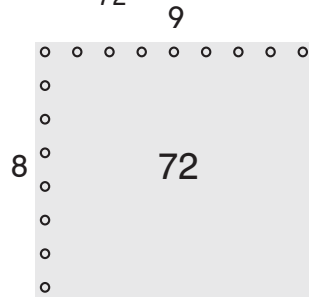
54  
63  
72  
81



$$\begin{array}{r} 9 \\ \times 8 \\ \hline 72 \end{array} \quad \begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$$

8      9  
16     18  
24     27  
32     36  
40     45

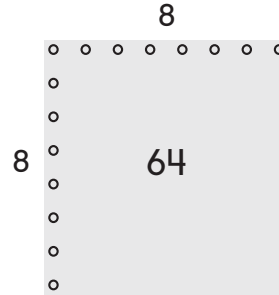
48     54  
56     63  
64     72  
72



$$64 = 8 \times 8$$

8  
16  
24  
32  
40

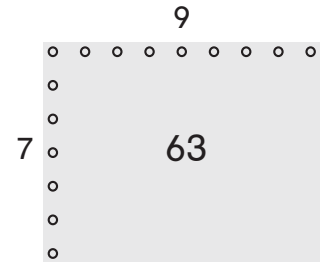
48  
56  
64



$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array} \quad \begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

9      7  
18     14  
27     21  
36     28  
45     35

54     42  
63     49  
56  
63



$$\begin{array}{r} 2 \overline{)4} \\ 4 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)6} \\ 6 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)8} \\ 8 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)10} \\ 10 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)12} \\ 12 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)14} \\ 14 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)16} \\ 16 \div 2 \end{array}$$

$$\begin{array}{r} 2 \overline{)18} \\ 18 \div 2 \end{array}$$

$$\begin{array}{r} 5 \quad 2 \\ 2 \overline{)10} \quad 5 \overline{)10} \\ 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 5 \quad 10 \end{array}$$

$$2 \begin{array}{c} 5 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 10 \end{array}$$

$$\begin{array}{r} 4 \quad 2 \\ 2 \overline{)8} \quad 4 \overline{)8} \\ 2 \quad 4 \quad 6 \quad 8 \\ 4 \quad 8 \end{array}$$

$$2 \begin{array}{c} 4 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 8 \end{array}$$

$$\begin{array}{r} 3 \quad 2 \\ 2 \overline{)6} \quad 3 \overline{)6} \\ 2 \quad 4 \quad 6 \\ 3 \quad 6 \end{array}$$

$$2 \begin{array}{c} 3 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 6 \end{array}$$

$$\begin{array}{r} 2 \\ 2 \overline{)4} \\ 2 \quad 4 \end{array}$$

$$2 \begin{array}{c} 2 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 4 \end{array}$$

$$\begin{array}{r} 9 \quad 2 \\ 2 \overline{)18} \quad 9 \overline{)18} \\ 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \quad 14 \quad 16 \quad 18 \\ 9 \quad 18 \end{array}$$

$$2 \begin{array}{c} 9 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 18 \end{array}$$

$$\begin{array}{r} 8 \quad 2 \\ 2 \overline{)16} \quad 8 \overline{)16} \\ 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \quad 14 \quad 16 \\ 8 \quad 16 \end{array}$$

$$2 \begin{array}{c} 8 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 16 \end{array}$$

$$\begin{array}{r} 7 \quad 2 \\ 2 \overline{)14} \quad 7 \overline{)14} \\ 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \quad 14 \\ 7 \quad 14 \end{array}$$

$$2 \begin{array}{c} 7 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 14 \end{array}$$

$$\begin{array}{r} 6 \quad 2 \\ 2 \overline{)12} \quad 6 \overline{)12} \\ 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ 12 \\ 6 \quad 12 \end{array}$$

$$2 \begin{array}{c} 6 \\ \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \quad \circ \\ \circ \quad 12 \end{array}$$

$$3 \overline{)6}$$

$$6 \div 3$$

$$4 \overline{)8}$$

$$8 \div 4$$

$$5 \overline{)10}$$

$$10 \div 5$$

$$6 \overline{)12}$$

$$12 \div 6$$

$$7 \overline{)14}$$

$$14 \div 7$$

$$8 \overline{)16}$$

$$16 \div 8$$

$$9 \overline{)18}$$

$$18 \div 9$$

$$3 \overline{)9}$$

$$9 \div 3$$

$$\begin{array}{r} 2 \quad 6 \\ 6 \overline{)12} \quad 2 \overline{)12} \\ 6 \quad 2 \\ 12 \quad 4 \\ \quad 6 \\ \quad 8 \\ \quad 10 \\ \quad 12 \end{array}$$

$$\begin{array}{r} 2 \\ 6 \overline{)12} \end{array}$$

$$\begin{array}{r} 2 \quad 5 \\ 5 \overline{)10} \quad 2 \overline{)10} \\ 5 \quad 2 \\ 10 \quad 4 \\ \quad 6 \\ \quad 8 \\ \quad 10 \end{array}$$

$$\begin{array}{r} 2 \\ 5 \overline{)10} \end{array}$$

$$\begin{array}{r} 2 \quad 4 \\ 4 \overline{)8} \quad 2 \overline{)8} \\ 4 \quad 2 \\ 8 \quad 4 \\ \quad 6 \\ \quad 8 \end{array}$$

$$\begin{array}{r} 2 \\ 4 \overline{)8} \end{array}$$

$$\begin{array}{r} 2 \quad 3 \\ 3 \overline{)6} \quad 2 \overline{)6} \\ 3 \quad 2 \\ 6 \quad 4 \\ \quad 6 \end{array}$$

$$\begin{array}{r} 2 \\ 3 \overline{)6} \end{array}$$

$$\begin{array}{r} 3 \\ 3 \overline{)9} \\ 3 \quad 6 \\ 9 \end{array}$$

$$\begin{array}{r} 3 \\ 3 \overline{)9} \end{array}$$

$$\begin{array}{r} 2 \quad 9 \\ 9 \overline{)18} \quad 2 \overline{)18} \\ 9 \quad 2 \\ 18 \quad 4 \\ \quad 6 \\ \quad 8 \\ \quad 10 \\ \quad 12 \\ \quad 14 \\ \quad 16 \\ \quad 18 \end{array}$$

$$\begin{array}{r} 2 \\ 9 \overline{)18} \end{array}$$

$$\begin{array}{r} 2 \quad 8 \\ 8 \overline{)16} \quad 2 \overline{)16} \\ 8 \quad 2 \\ 16 \quad 4 \\ \quad 6 \\ \quad 8 \\ \quad 10 \\ \quad 12 \\ \quad 14 \\ \quad 16 \end{array}$$

$$\begin{array}{r} 2 \\ 8 \overline{)16} \end{array}$$

$$\begin{array}{r} 2 \quad 7 \\ 7 \overline{)14} \quad 2 \overline{)14} \\ 7 \quad 2 \\ 14 \quad 4 \\ \quad 6 \\ \quad 8 \\ \quad 10 \\ \quad 12 \\ \quad 14 \end{array}$$

$$\begin{array}{r} 2 \\ 7 \overline{)14} \end{array}$$



$$\begin{array}{r} 3 \overline{)12} \\ 12 \div 3 \end{array}$$

$$\begin{array}{r} 3 \overline{)15} \\ 15 \div 3 \end{array}$$

$$\begin{array}{r} 3 \overline{)18} \\ 18 \div 3 \end{array}$$

$$\begin{array}{r} 3 \overline{)21} \\ 21 \div 3 \end{array}$$

$$\begin{array}{r} 3 \overline{)24} \\ 24 \div 3 \end{array}$$

$$\begin{array}{r} 3 \overline{)27} \\ 27 \div 3 \end{array}$$

$$\begin{array}{r} 4 \overline{)12} \\ 12 \div 4 \end{array}$$

$$\begin{array}{r} 5 \overline{)15} \\ 15 \div 5 \end{array}$$

$$\begin{array}{r} 7 \quad 3 \\ 3 \overline{)21} \quad 7 \overline{)21} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \end{array} \quad \begin{array}{r} 7 \\ 14 \\ 21 \end{array}$$

$$\begin{array}{c} 7 \\ 3 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 21 \\ \circ \end{array}$$

$$\begin{array}{r} 6 \quad 3 \\ 3 \overline{)18} \quad 6 \overline{)18} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \end{array} \quad \begin{array}{r} 6 \\ 12 \\ 18 \end{array}$$

$$\begin{array}{c} 6 \\ 3 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 18 \\ \circ \end{array}$$

$$\begin{array}{r} 5 \quad 3 \\ 3 \overline{)15} \quad 5 \overline{)15} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \end{array} \quad \begin{array}{r} 5 \\ 10 \\ 15 \end{array}$$

$$\begin{array}{c} 5 \\ 3 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 15 \\ \circ \end{array}$$

$$\begin{array}{r} 4 \quad 3 \\ 3 \overline{)12} \quad 4 \overline{)12} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \end{array} \quad \begin{array}{r} 4 \\ 8 \\ 12 \end{array}$$

$$\begin{array}{c} 4 \\ 3 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 12 \\ \circ \end{array}$$

$$\begin{array}{r} 3 \quad 5 \\ 5 \overline{)15} \quad 3 \overline{)15} \end{array}$$

$$\begin{array}{r} 5 \\ 10 \\ 15 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \end{array}$$

$$\begin{array}{c} 3 \\ 5 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 15 \\ \circ \end{array}$$

$$\begin{array}{r} 3 \quad 4 \\ 4 \overline{)12} \quad 3 \overline{)12} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \end{array}$$

$$\begin{array}{c} 3 \\ 4 \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 12 \\ \circ \end{array}$$

$$\begin{array}{r} 9 \quad 3 \\ 3 \overline{)27} \quad 9 \overline{)27} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \\ 27 \end{array} \quad \begin{array}{r} 9 \\ 18 \\ 27 \end{array}$$

$$\begin{array}{c} 9 \\ 3 \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 27 \\ \circ \end{array}$$

$$\begin{array}{r} 8 \quad 3 \\ 3 \overline{)24} \quad 8 \overline{)24} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \end{array} \quad \begin{array}{r} 8 \\ 16 \\ 24 \end{array}$$

$$\begin{array}{c} 8 \\ 3 \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ \\ \circ \quad 24 \\ \circ \end{array}$$

$$\begin{array}{r} 6 \overline{)18} \\ 18 \div 6 \end{array}$$

$$\begin{array}{r} 7 \overline{)21} \\ 21 \div 7 \end{array}$$

$$\begin{array}{r} 8 \overline{)24} \\ 24 \div 8 \end{array}$$

$$\begin{array}{r} 9 \overline{)27} \\ 27 \div 9 \end{array}$$

$$\begin{array}{r} 4 \overline{)16} \\ 16 \div 4 \end{array}$$

$$\begin{array}{r} 4 \overline{)20} \\ 20 \div 4 \end{array}$$

$$\begin{array}{r} 4 \overline{)24} \\ 24 \div 4 \end{array}$$

$$\begin{array}{r} 4 \overline{)28} \\ 28 \div 4 \end{array}$$

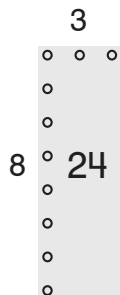
$$\begin{array}{r} 3 \quad 9 \\ 9 \overline{)27} \quad 3 \overline{)27} \end{array}$$

$$\begin{array}{r} 9 \\ 18 \\ 27 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \\ 27 \end{array}$$



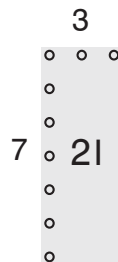
$$\begin{array}{r} 3 \quad 8 \\ 8 \overline{)24} \quad 3 \overline{)24} \end{array}$$

$$\begin{array}{r} 8 \\ 16 \\ 24 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \end{array}$$



$$\begin{array}{r} 3 \quad 7 \\ 7 \overline{)21} \quad 3 \overline{)21} \end{array}$$

$$\begin{array}{r} 7 \\ 14 \\ 21 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \end{array}$$



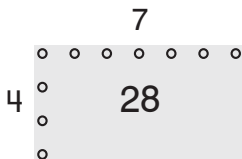
$$\begin{array}{r} 3 \quad 6 \\ 6 \overline{)18} \quad 3 \overline{)18} \end{array}$$

$$\begin{array}{r} 6 \\ 12 \\ 18 \end{array} \quad \begin{array}{r} 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \end{array}$$



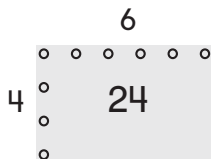
$$\begin{array}{r} 7 \quad 4 \\ 4 \overline{)28} \quad 7 \overline{)28} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 16 \\ 20 \\ 24 \\ 28 \end{array} \quad \begin{array}{r} 7 \\ 14 \\ 21 \\ 28 \end{array}$$



$$\begin{array}{r} 6 \quad 4 \\ 4 \overline{)24} \quad 6 \overline{)24} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 16 \\ 20 \\ 24 \end{array} \quad \begin{array}{r} 6 \\ 12 \\ 18 \\ 24 \end{array}$$



$$\begin{array}{r} 5 \quad 4 \\ 4 \overline{)20} \quad 5 \overline{)20} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 16 \\ 20 \end{array} \quad \begin{array}{r} 5 \\ 10 \\ 15 \\ 20 \end{array}$$



$$\begin{array}{r} 4 \\ 4 \overline{)16} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \\ 12 \\ 16 \end{array}$$



$$4 \overline{)32}$$

$$32 \div 4$$

$$4 \overline{)36}$$

$$36 \div 4$$

$$5 \overline{)20}$$

$$20 \div 5$$

$$6 \overline{)24}$$

$$24 \div 6$$

$$7 \overline{)28}$$

$$28 \div 7$$

$$8 \overline{)32}$$

$$32 \div 8$$

$$9 \overline{)36}$$

$$36 \div 9$$

$$5 \overline{)25}$$

$$25 \div 5$$

$$\begin{array}{r} 4 \quad 6 \\ 6 \overline{)24} \quad 4 \overline{)24} \end{array}$$

6	4
12	8
18	12
24	16
	20
	24



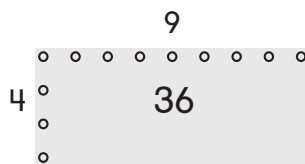
$$\begin{array}{r} 4 \quad 5 \\ 5 \overline{)20} \quad 4 \overline{)20} \end{array}$$

5	4
10	8
15	12
20	16
	20



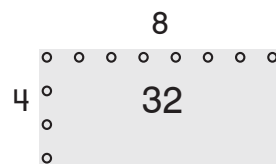
$$\begin{array}{r} 9 \quad 4 \\ 4 \overline{)36} \quad 9 \overline{)36} \end{array}$$

4	9
8	18
12	27
16	36
20	
24	
28	
32	
36	



$$\begin{array}{r} 8 \quad 4 \\ 4 \overline{)32} \quad 8 \overline{)32} \end{array}$$

4	8
8	16
12	24
16	32
20	
24	
28	
32	



$$\begin{array}{r} 5 \\ 5 \overline{)25} \end{array}$$

5
10
15
20
25



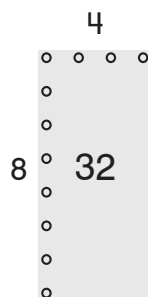
$$\begin{array}{r} 4 \quad 9 \\ 9 \overline{)36} \quad 4 \overline{)36} \end{array}$$

9	4
18	8
27	12
36	16
	20
	24
	28
	32
	36



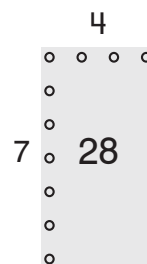
$$\begin{array}{r} 4 \quad 8 \\ 8 \overline{)32} \quad 4 \overline{)32} \end{array}$$

8	4
16	8
24	12
32	16
	20
	24
	28
	32



$$\begin{array}{r} 4 \quad 7 \\ 7 \overline{)28} \quad 4 \overline{)28} \end{array}$$

7	4
14	8
21	12
28	16
	20
	24
	28



$$\begin{array}{r} 5 \overline{)30} \\ 30 \div 5 \end{array}$$

$$\begin{array}{r} 5 \overline{)35} \\ 35 \div 5 \end{array}$$

$$\begin{array}{r} 5 \overline{)40} \\ 40 \div 5 \end{array}$$

$$\begin{array}{r} 5 \overline{)45} \\ 45 \div 5 \end{array}$$

$$\begin{array}{r} 6 \overline{)30} \\ 30 \div 6 \end{array}$$

$$\begin{array}{r} 7 \overline{)35} \\ 35 \div 7 \end{array}$$

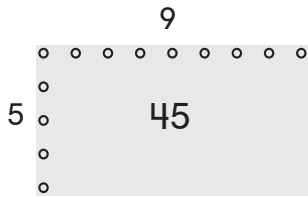
$$\begin{array}{r} 8 \overline{)40} \\ 40 \div 8 \end{array}$$

$$\begin{array}{r} 9 \overline{)45} \\ 45 \div 9 \end{array}$$

$$\begin{array}{r} 9 \quad 5 \\ 5 \overline{)45} \quad 9 \overline{)45} \end{array}$$

5	9
10	18
15	27
20	36
25	45

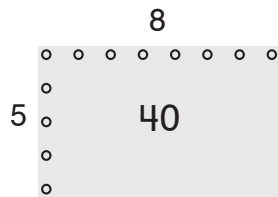
30  
35  
40  
45



$$\begin{array}{r} 8 \quad 5 \\ 5 \overline{)40} \quad 8 \overline{)40} \end{array}$$

5	8
10	16
15	24
20	32
25	40

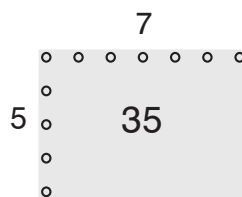
30  
35  
40



$$\begin{array}{r} 7 \quad 5 \\ 5 \overline{)35} \quad 7 \overline{)35} \end{array}$$

5	7
10	14
15	21
20	28
25	35

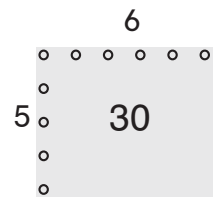
30  
35



$$\begin{array}{r} 6 \quad 5 \\ 5 \overline{)30} \quad 6 \overline{)30} \end{array}$$

5	6
10	12
15	18
20	24
25	30

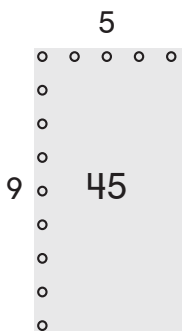
30



$$\begin{array}{r} 5 \quad 9 \\ 9 \overline{)45} \quad 5 \overline{)45} \end{array}$$

9	5
18	10
27	15
36	20
45	25

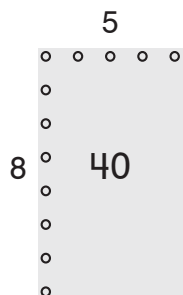
30  
35  
40  
45



$$\begin{array}{r} 5 \quad 8 \\ 8 \overline{)40} \quad 5 \overline{)40} \end{array}$$

8	5
16	10
24	15
32	20
40	25

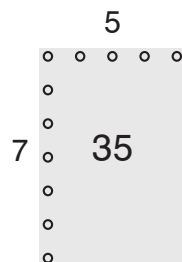
30  
35  
40



$$\begin{array}{r} 5 \quad 7 \\ 7 \overline{)35} \quad 5 \overline{)35} \end{array}$$

7	5
14	10
21	15
28	20
35	25

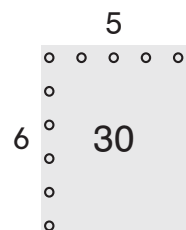
30  
35



$$\begin{array}{r} 5 \quad 6 \\ 6 \overline{)30} \quad 5 \overline{)30} \end{array}$$

6	5
12	10
18	15
24	20
30	25

30





$$\begin{array}{r} 6 \overline{)36} \\ 36 \div 6 \end{array}$$

$$\begin{array}{r} 6 \overline{)42} \\ 42 \div 6 \end{array}$$

$$\begin{array}{r} 6 \overline{)48} \\ 48 \div 6 \end{array}$$

$$\begin{array}{r} 6 \overline{)54} \\ 54 \div 6 \end{array}$$

$$\begin{array}{r} 7 \overline{)42} \\ 42 \div 7 \end{array}$$

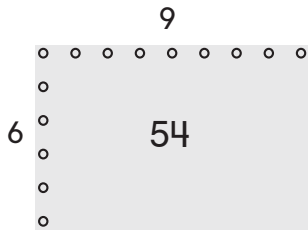
$$\begin{array}{r} 8 \overline{)48} \\ 48 \div 8 \end{array}$$

$$\begin{array}{r} 9 \overline{)54} \\ 54 \div 9 \end{array}$$

$$\begin{array}{r} 7 \overline{)49} \\ 49 \div 7 \end{array}$$

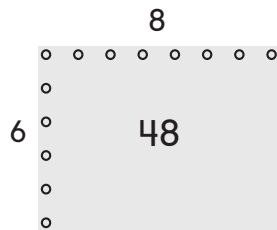
$$\begin{array}{r} 9 \quad 6 \\ 6 \overline{)54} \quad 9 \overline{)54} \end{array}$$

6	9
12	18
18	27
24	36
30	45
36	54
42	
48	
54	



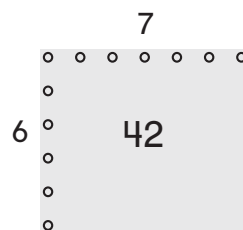
$$\begin{array}{r} 8 \quad 6 \\ 6 \overline{)48} \quad 8 \overline{)48} \end{array}$$

6	8
12	16
18	24
24	32
30	40
36	48
42	
48	



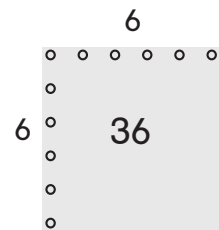
$$\begin{array}{r} 7 \quad 6 \\ 6 \overline{)42} \quad 7 \overline{)42} \end{array}$$

6	7
12	14
18	21
24	28
30	35
36	42
42	



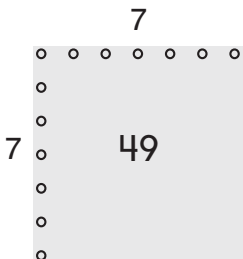
$$6 \overline{)36}$$

6
12
18
24
30
36



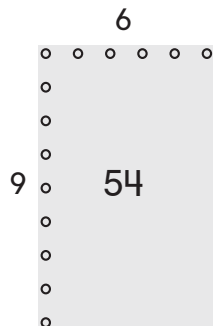
$$7 \overline{)49}$$

7
14
21
28
35
42
49



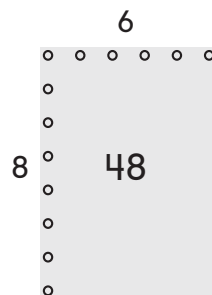
$$\begin{array}{r} 6 \quad 9 \\ 9 \overline{)54} \quad 6 \overline{)54} \end{array}$$

9	6
18	12
27	18
36	24
45	30
54	36
	42
	48
	54



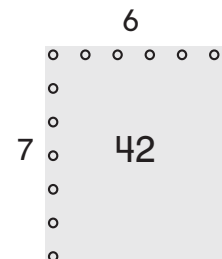
$$\begin{array}{r} 6 \quad 8 \\ 8 \overline{)48} \quad 6 \overline{)48} \end{array}$$

8	6
16	12
24	18
32	24
40	30
48	36
	42
	48



$$\begin{array}{r} 6 \quad 7 \\ 7 \overline{)42} \quad 6 \overline{)42} \end{array}$$

7	6
14	12
21	18
28	24
35	30
42	36
	42



$$7 \overline{)56}$$

$$56 \div 7$$

$$7 \overline{)63}$$

$$63 \div 7$$

$$8 \overline{)56}$$

$$56 \div 8$$

$$9 \overline{)63}$$

$$63 \div 9$$

$$8 \overline{)64}$$

$$64 \div 8$$

$$8 \overline{)72}$$

$$72 \div 8$$

$$9 \overline{)72}$$

$$72 \div 9$$

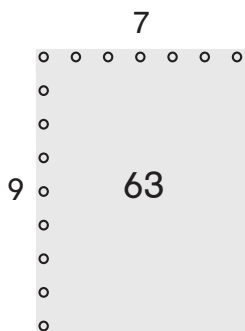
$$9 \overline{)81}$$

$$81 \div 9$$

$$\begin{array}{r} 7 \\ 9 \overline{)63} \end{array} \quad \begin{array}{r} 9 \\ 7 \overline{)63} \end{array}$$

9	7
18	14
27	21
36	28
45	35

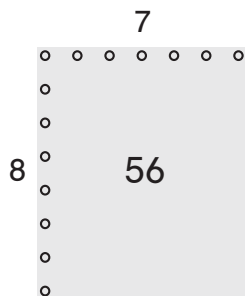
54	42
63	49
	56
	63



$$\begin{array}{r} 7 \\ 8 \overline{)56} \end{array} \quad \begin{array}{r} 8 \\ 7 \overline{)56} \end{array}$$

8	7
16	14
24	21
32	28
40	35

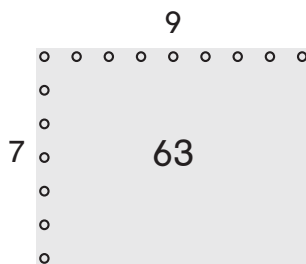
48	42
56	49
	56



$$\begin{array}{r} 9 \\ 7 \overline{)63} \end{array} \quad \begin{array}{r} 7 \\ 9 \overline{)63} \end{array}$$

7	9
14	18
21	27
28	36
35	45

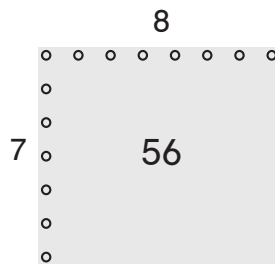
42	54
49	63
56	
63	



$$\begin{array}{r} 8 \\ 7 \overline{)56} \end{array} \quad \begin{array}{r} 7 \\ 8 \overline{)56} \end{array}$$

7	8
14	16
21	24
28	32
35	40

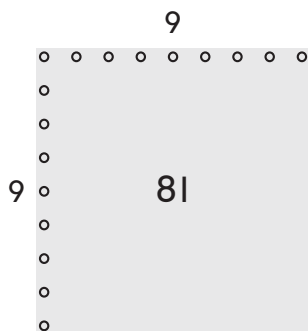
42	48
49	56
56	



$$\begin{array}{r} 9 \\ 9 \overline{)81} \end{array}$$

9
18
27
36
45

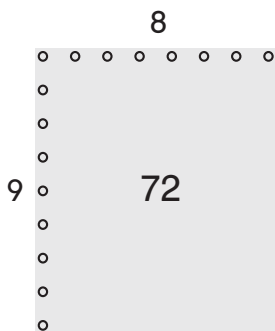
54
63
72
81



$$\begin{array}{r} 8 \\ 9 \overline{)72} \end{array} \quad \begin{array}{r} 9 \\ 8 \overline{)72} \end{array}$$

9	8
18	16
27	24
36	32
45	40

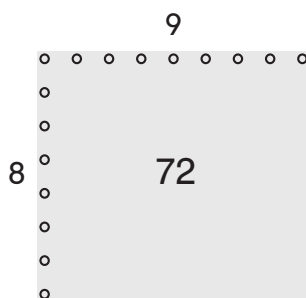
54	48
63	56
72	64
	72



$$\begin{array}{r} 9 \\ 8 \overline{)72} \end{array} \quad \begin{array}{r} 8 \\ 9 \overline{)72} \end{array}$$

8	9
16	18
24	27
32	36
40	45

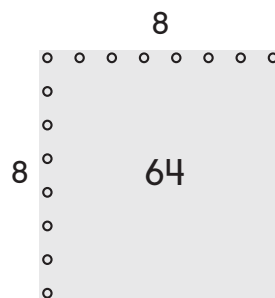
48	54
56	63
64	72
72	



$$\begin{array}{r} 8 \\ 8 \overline{)64} \end{array}$$

8
16
24
32
40

48
56
64



## Homework

## Home Study Sheet B

3s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 3 = 3$	$5 \times 3 = 15$	$27 \div 3 = 9$
$2 \times 3 = 6$	$1 \times 3 = 3$	$6 \div 3 = 2$
$3 \times 3 = 9$	$8 \times 3 = 24$	$18 \div 3 = 6$
$4 \times 3 = 12$	$10 \times 3 = 30$	$30 \div 3 = 10$
$5 \times 3 = 15$	$3 \times 3 = 9$	$9 \div 3 = 3$
$6 \times 3 = 18$	$7 \times 3 = 21$	$3 \div 3 = 1$
$7 \times 3 = 21$	$9 \times 3 = 27$	$12 \div 3 = 4$
$8 \times 3 = 24$	$2 \times 3 = 6$	$24 \div 3 = 8$
$9 \times 3 = 27$	$4 \times 3 = 12$	$15 \div 3 = 5$
$10 \times 3 = 30$	$6 \times 3 = 18$	$21 \div 3 = 7$

4s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 4 = 4$	$4 \times 4 = 16$	$12 \div 4 = 3$
$2 \times 4 = 8$	$1 \times 4 = 4$	$36 \div 4 = 9$
$3 \times 4 = 12$	$7 \times 4 = 28$	$24 \div 4 = 6$
$4 \times 4 = 16$	$3 \times 4 = 12$	$4 \div 4 = 1$
$5 \times 4 = 20$	$9 \times 4 = 36$	$20 \div 4 = 5$
$6 \times 4 = 24$	$10 \times 4 = 40$	$28 \div 4 = 7$
$7 \times 4 = 28$	$2 \times 4 = 8$	$8 \div 4 = 2$
$8 \times 4 = 32$	$5 \times 4 = 20$	$40 \div 4 = 10$
$9 \times 4 = 36$	$8 \times 4 = 32$	$32 \div 4 = 8$
$10 \times 4 = 40$	$6 \times 4 = 24$	$16 \div 4 = 4$

0s		
Count-bys	Mixed Up $\times$	
$1 \times 0 = 0$	$3 \times 0 = 0$	
$2 \times 0 = 0$	$10 \times 0 = 0$	
$3 \times 0 = 0$	$5 \times 0 = 0$	
$4 \times 0 = 0$	$8 \times 0 = 0$	
$5 \times 0 = 0$	$7 \times 0 = 0$	
$6 \times 0 = 0$	$2 \times 0 = 0$	
$7 \times 0 = 0$	$9 \times 0 = 0$	
$8 \times 0 = 0$	$6 \times 0 = 0$	
$9 \times 0 = 0$	$1 \times 0 = 0$	
$10 \times 0 = 0$	$4 \times 0 = 0$	

1s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 1 = 1$	$5 \times 1 = 5$	$10 \div 1 = 10$
$2 \times 1 = 2$	$7 \times 1 = 7$	$8 \div 1 = 8$
$3 \times 1 = 3$	$10 \times 1 = 10$	$4 \div 1 = 4$
$4 \times 1 = 4$	$1 \times 1 = 1$	$9 \div 1 = 9$
$5 \times 1 = 5$	$8 \times 1 = 8$	$6 \div 1 = 6$
$6 \times 1 = 6$	$4 \times 1 = 4$	$7 \div 1 = 7$
$7 \times 1 = 7$	$9 \times 1 = 9$	$1 \div 1 = 1$
$8 \times 1 = 8$	$3 \times 1 = 3$	$2 \div 1 = 2$
$9 \times 1 = 9$	$2 \times 1 = 2$	$5 \div 1 = 5$
$10 \times 1 = 10$	$6 \times 1 = 6$	$3 \div 1 = 3$

**Homework**

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of the page.

1.  $3 \times 5 = \square$

2.  $27 \div 9 = \square$

3.  $2 \overline{) \square 20}$

4.  $7 \bullet 9 = \square$

5.  $2 * \square = 12$

6.  $18 / 3 = \square$

7.  $9 \times 5 = \square$

8.  $3 * \square = 21$

9.  $\frac{81}{9} = \square$

10.  $6 \div 3 = \square$

11.  $8 \times 2 = \square$

12.  $\frac{14}{2} = \square$

13.  $3 \bullet 3 = \square$

14.  $\square * 9 = 72$

15.  $90 \div 9 = \square$

16.  $\square * 2 = 18$

17.  $24 \div \square = 8$

18.  $12 / \square = 6$

19.  $6 \bullet 5 = \square$

20.  $4 \times \square = 40$

21.  $\square \bullet 9 = 54$

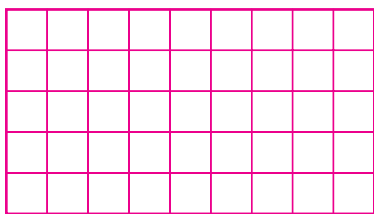
1. 15 2. 3 3. 10 4. 63 5. 6 6. 6 7. 45 8. 7 9. 9 10. 2 11. 16  
12. 7 13. 9 14. 8 15. 10 16. 9 17. 3 18. 2 19. 30 20. 10 21. 6

**Homework****Study Plan**

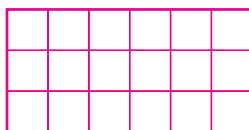
Homework Helper

Make a rectangle drawing to represent each exercise.  
Then find the product.

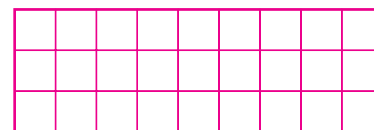
1.  $5 \times 9 = \underline{45}$



2.  $3 * 6 = \underline{18}$



3.  $3 \bullet 9 = \underline{27}$

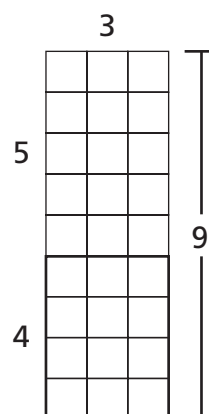


Ashley drew this large rectangle, which is made up of two small rectangles.

4. Find the area of the large rectangle by finding the areas of the two small rectangles and adding them.  
 $(5 \times 3) + (4 \times 3) = 15 + 12 = 27, 27 \text{ square units}$

5. Find the area of the large rectangle by multiplying the number of rows by the number of square units in each row.

$9 \times 3 = 27 \text{ square units}$



6. Find this product:  $5 \times 6 = \underline{30}$

7. Find this product:  $2 \times 6 = \underline{12}$

8. Use your answers to exercises 6 and 7 to find this product:  $7 \times 6 = \underline{42}$

# Remembering

Multiply or divide to find the unknown numbers.

1.  $30 \div 3 = \boxed{10}$

2.  $5 * \boxed{8} = 40$

3.  $\frac{18}{9} = \boxed{2}$

4.  $3 \bullet 8 = \boxed{24}$

5.  $5 \overline{)25}$

6.  $\boxed{7} \times 2 = 14$

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

7. There are 50 paper clips in the box. Each art project requires 10 paper clips. How many art projects can be made with the box of 50 clips?

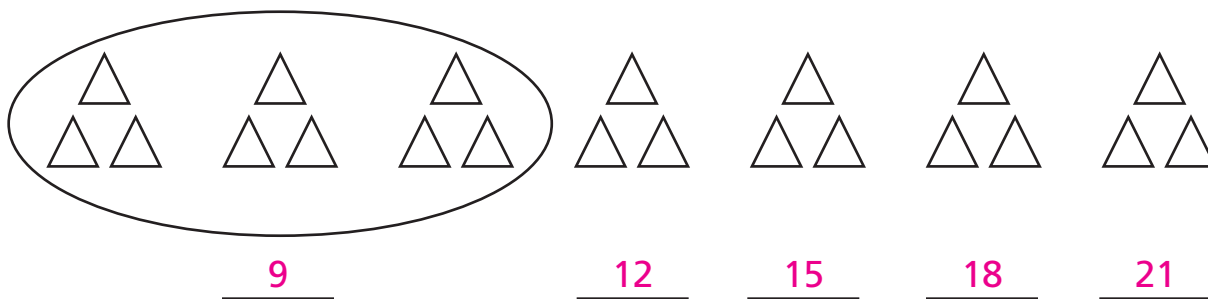
$50 \div 10 = a$  or  $a \times 10 = 50$ ;  $a = 5$ ; 5 art projects

8. There are 27 toys in 3 boxes. Each box has the same number of toys. How many toys are in each box?

$27 \div 3 = t$  or  $3 \times t = 27$ ;  $t = 9$ ; 9 toys

Find the total number by starting with the third count-by and counting from there.

9. How many triangles are in these 7 sets?



10. **Stretch Your Thinking** Aiden knows the length of only one side of his garden. He says he will be able to find the area knowing only one side. Explain how this can be true.

Possible answer: If his garden is a square, he knows all the sides have the same length. If one side is 5 feet, then he knows the other sides are also 5 feet. He can then multiply  $5 \times 5$  to solve for the area of 25 square feet.



**Homework**

Use this table to practice your 4s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>4s</b>	$1 \times 4 = 4$	$9 \times 4 = 36$	$20 \div 4 = 5$
	$2 \times 4 = 8$	$5 \times 4 = 20$	$4 \div 4 = 1$
	$3 \times 4 = 12$	$7 \times 4 = 28$	$16 \div 4 = 4$
	$4 \times 4 = 16$	$2 \times 4 = 8$	$36 \div 4 = 9$
	$5 \times 4 = 20$	$4 \times 4 = 16$	$24 \div 4 = 6$
	$6 \times 4 = 24$	$1 \times 4 = 4$	$12 \div 4 = 3$
	$7 \times 4 = 28$	$6 \times 4 = 24$	$32 \div 4 = 8$
	$8 \times 4 = 32$	$8 \times 4 = 32$	$8 \div 4 = 2$
	$9 \times 4 = 36$	$3 \times 4 = 12$	$40 \div 4 = 10$
	$10 \times 4 = 40$	$10 \times 4 = 40$	$28 \div 4 = 7$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $4 \times 9 = \square$

2.  $12 \div 3 = \square$

3.  $4 * 8 = \square$
4.  $30 / 3 = \square$

5.  $3 \bullet \square = 24$

6.  $\square \overline{)81}$
7.  $6 \times 3 = \square$

8.  $\frac{27}{3} = \square$

9.  $9 \times 10 = \square$
10.  $24 / 4 = \square$

11.  $10 \bullet 3 = \square$

12.  $16 \div 4 = \square$
13.  $9 * \square = 63$

14.  $\frac{36}{4} = \square$

15.  $7 \bullet 4 = \square$
16.  $20 / 4 = \square$

17.  $\square \overline{)54}$

18.  $3 * 7 = \square$
19.  $\square \times 4 = 4$

20.  $15 \div 3 = \square$

21.  $4 \times \square = 16$

1. 36 2. 4 3. 32 4. 10 5. 8 6. 9 7. 18 8. 9 9. 90 10. 6 11. 30

12. 4 13. 7 14. 9 15. 28 16. 5 17. 6 18. 21 19. 1 20. 5 21. 4

**Homework****Home Check Sheet 4: 3s and 4s**

<b>3s Multiplication</b>	<b>3s Divisions</b>	<b>4s Multiplications</b>	<b>4s Divisions</b>
$8 \times 3 = 24$	$9 / 3 = 3$	$1 \times 4 = 4$	$40 / 4 = 10$
$3 \bullet 2 = 6$	$21 \div 3 = 7$	$4 \bullet 5 = 20$	$12 \div 4 = 3$
$3 * 5 = 15$	$27 / 3 = 9$	$8 * 4 = 32$	$24 / 4 = 6$
$10 \times 3 = 30$	$3 \div 3 = 1$	$3 \times 4 = 12$	$8 \div 4 = 2$
$3 \bullet 3 = 9$	$18 / 3 = 6$	$4 \bullet 6 = 24$	$4 / 4 = 1$
$3 * 6 = 18$	$12 \div 3 = 4$	$4 * 9 = 36$	$28 \div 4 = 7$
$7 \times 3 = 21$	$30 / 3 = 10$	$10 \times 4 = 40$	$32 / 4 = 8$
$3 \bullet 9 = 27$	$6 \div 3 = 2$	$4 \bullet 7 = 28$	$16 \div 4 = 4$
$4 * 3 = 12$	$24 / 3 = 8$	$4 * 4 = 16$	$36 / 4 = 9$
$3 \times 1 = 3$	$15 / 3 = 5$	$2 \times 4 = 8$	$20 / 4 = 5$
$3 \bullet 4 = 12$	$21 \div 3 = 7$	$4 \bullet 3 = 12$	$4 \div 4 = 1$
$3 * 3 = 9$	$3 / 3 = 1$	$4 * 2 = 8$	$32 / 4 = 8$
$3 \times 10 = 30$	$9 \div 3 = 3$	$9 \times 4 = 36$	$8 \div 4 = 2$
$2 \bullet 3 = 6$	$27 / 3 = 9$	$1 \bullet 4 = 4$	$16 / 4 = 4$
$3 * 7 = 21$	$30 \div 3 = 10$	$4 * 6 = 24$	$36 \div 4 = 9$
$6 \times 3 = 18$	$18 / 3 = 6$	$5 \times 4 = 20$	$12 / 4 = 3$
$5 \bullet 3 = 15$	$6 \div 3 = 2$	$4 \bullet 4 = 16$	$40 \div 4 = 10$
$3 * 8 = 24$	$15 \div 3 = 5$	$7 * 4 = 28$	$20 \div 4 = 5$
$9 \times 3 = 27$	$12 / 3 = 4$	$8 \times 4 = 32$	$24 / 4 = 6$
$2 \bullet 3 = 6$	$24 \div 3 = 8$	$10 \bullet 4 = 40$	$28 \div 4 = 7$



**Homework****Study Plan**

Homework Helper

**Solve each problem.**

1. Colin had 16 puzzles. He gave 4 puzzles to each of his nephews. How many nephews does Colin have?

4 nephews

2. Allegra listed the names of her classmates in 4 columns, with 7 names in each column. How many classmates does Allegra have?

28 classmates

This large rectangle is made up of two small rectangles.

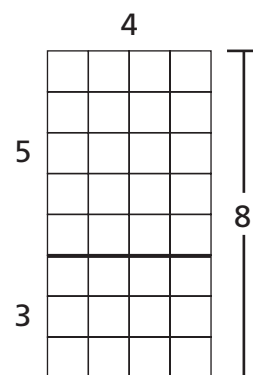
3. Find the area of the large rectangle by finding the areas of the two small rectangles and adding them.

$$(5 \times 4) + (3 \times 4) = 20 + 12 = 32;$$

32 square units

4. Find the area of the large rectangle by multiplying the number of rows by the number of square units in each row.

$$8 \times 4 = 32; 32 \text{ square units}$$

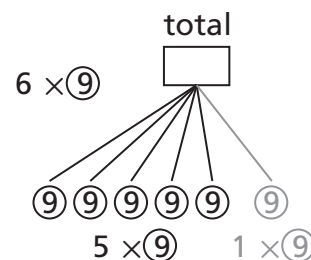


This Equal-Shares drawing shows that 6 groups of 9 is the same as 5 groups of 9 plus 1 group of 9.

5. Find  $5 \times 9$  and  $1 \times 9$ , and add the answers.

$$45 + 9 = 54$$

6. Find  $6 \times 9$ . Did you get the same answer as in question 5?

54, yes

# Remembering

Multiply or divide to find the unknown numbers.

1.  $18 \div 2 = \boxed{9}$

2.  $9 * \boxed{8} = 72$

3.  $\frac{40}{5} = \boxed{8}$

4.  $2 \bullet 7 = \boxed{14}$

5.  $\begin{array}{r} \boxed{6} \\ 5 \overline{)30} \end{array}$

6.  $\boxed{7} \times 10 = 70$

Equations and letters for variables may vary. Samples are given.

Write an equation and solve the problem.

7. Sydney has piles of 10 sticker sheets. She has 100 sheets in all. How many piles does she have?

$100 \div 10 = p$  or  $p \times 10 = 100$ ;  $p = 10$ ; 10 piles

8. Mr. Thomas gives 4 crayons to each of 8 students. How many crayons does he give out?

$4 \times 8 = c$ ;  $c = 32$ ; 32 crayons

Make a rectangle drawing to represent each multiplication. Then find the product.

9.  $3 \bullet 8 = \boxed{24}$


10.  $2 \bullet 9 = \boxed{18}$


11. **Stretch Your Thinking** Explain how you can solve  $8 \times 8$  if you know how to multiply with 4 but not how to multiply with 8.

Possible answer: I can do  $4 \times 8$  two times, and then add the products.  $4 \times 8 = 32$  and  $32 + 32 = 64$ , so  $8 \times 8 = 64$ .

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.****Equations and letters for variables may vary. Samples are given.**

1. Pablo hung his watercolor paintings in an array with 3 rows and 4 columns. How many paintings did Pablo hang?

$$3 \times 4 = p, p = 12; 12 \text{ paintings}$$

2. A group of 7 friends went on a hiking trip. Each person took 3 granola bars. What total number of granola bars did the friends take?

$$7 \times 3 = g, g = 21; 21 \text{ granola bars}$$

3. Jon had 45 sheets of construction paper. He used 9 sheets to make paper snowflakes. How many sheets does he have now?

$$45 - 9 = s, s = 36; 36 \text{ sheets}$$

You can combine multiplications you know to find multiplications you don't know.

4. Find this product:  $5 \times 8 = \underline{40}$

5. Find this product:  $1 \times 8 = \underline{8}$

6. Use the answers to Exercises 4 and 5 to find this product:  $6 \times 8 = \underline{48}$

# Remembering

**Write an equation and solve the problem.**

Equations and letters for variables may vary. Samples are given.

1. Tamara has 3 soccer practices each week. How many practices will she have after 7 weeks?

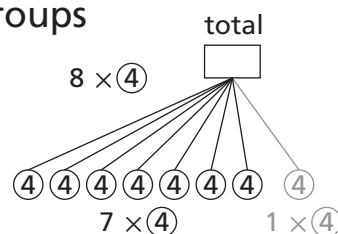
$3 \times 7 = p$ ,  $p = 21$  practices

2. David has 24 items to put in bags. If he puts 3 items in each bag, how many bags does he need?

$b \times 3 = 24$  or  $24 \div 3 = b$ ,  $b = 8$  bags

**Solve each problem.**

The Equal Shares drawing at the right shows that 8 groups of 4 is the same as 7 groups of 4 plus 1 group of 4.



3. Find  $7 \times 4$  and  $1 \times 4$ . Then add the answers.

$28 + 4 = 32$

4. Find  $8 \times 4$ . Did you get the same answer as in exercise 3?

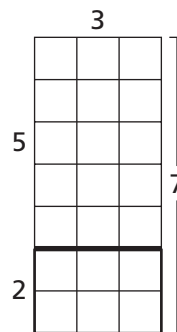
$32$ , yes

5. Find the area of the large rectangle by finding the area of the two small rectangles and adding them.

$(5 \times 3) + (2 \times 3) = 15 + 6 = 21$ , 21 square units

6. Find the area of the large rectangle by multiplying the number of rows by the number of squares in each row.

$7 \times 3 = 21$  square units



7. **Stretch Your Thinking** Select a strategy card. Without looking at the back, write two strategies you can use to solve it. Turn it over to check.

For a multiplication card: the problem should have a vertical written problem 2 ways with the answers, count-bys up to the product for both factors, and a Fast Array drawing that shows the product and the two factors.



**Homework****Study Plan**

Homework Helper

**Multiply or divide to find the unknown numbers.**

1.  $4 * 3 = \underline{12}$

2.  $4 \times \underline{7} = 28$

3.  $27 \div 9 = \underline{3}$

4.  $30 / 5 = \underline{6}$

5.  $9 \bullet 9 = \underline{81}$

6.  $8 \times \underline{2} = 16$

7.  $3 \bullet \underline{6} = 18$

8.  $21 \div 3 = \underline{7}$

9.  $45 / 5 = \underline{9}$

**Write an equation and solve the problem.***Show your work.***Equations and variables may vary. Samples are given**

- 10.** There are 4 measuring cups in a set. Mr. Lee's science class has 8 sets of measuring cups. How many cups are there altogether?

$8 \times 4 = c, c = 8; 32 \text{ cups}$

- 11.** A carousel has 40 horses. There are 4 horses in each row. How many rows are there on the carousel?

$40 \div 4 = h \text{ or } 4 \times h = 40, h = 10; 10 \text{ rows}$

- 12.** Kevin said it is 2 weeks until his birthday. A week is 7 days. How many days is it until Kevin's birthday?

$2 \times 7 = d, d = 14; 14 \text{ days}$

# Remembering

- Find this product:  $3 \times 9 = \underline{27}$
- Find this product:  $5 \times 9 = \underline{45}$
- Use your answers to Exercises 1 and 2 to find this product:  $8 \times 9 = \underline{72}$

**Multiply or divide to find the unknown numbers.**

- $3 \cdot 6 = \boxed{18}$
- $5 \overline{)40}$   $\boxed{8}$
- $\boxed{7} \times 4 = 28$
- $32 \div 8 = \boxed{4}$
- $5 * \boxed{7} = 35$
- $\frac{16}{4} = \boxed{4}$
- $\frac{16}{2} = \boxed{8}$
- $30 \div \boxed{10} = 3$
- $4 \times \boxed{3} = 12$

**Write an equation and solve the problem. Equations and letters for variables may vary. Samples are given.**

13. Lauren uses 30 beads to make 5 bracelets. She uses the same number of beads for each bracelet.

How many beads are on each bracelet?

$30 \div 5 = b$  or  $5 \times b = 30$ ,  $b = 6$ ; 6 beads

14. Eric sets up chairs for a meeting in 6 rows of 9. How many chairs does he set up?

$6 \times 9 = c$ ,  $c = 54$ ; 54 chairs

15. **Stretch Your Thinking** Suppose your teacher tells you to write a word problem using the number 3. Which would be the best object to use in your problem? Explain. Then write and solve a word problem using that object.

tricycle

bike

wagon

Possible answer: tricycle because it has 3 wheels.

There are 6 tricycles in the shop. How many wheels are on the tricycles?  $6 \times 3 = 18$  wheels

**Homework**

	× In Order	× Mixed Up	÷ Mixed Up
<b>1s</b>	$1 \times 1 = 1$	$3 \times 1 = 3$	$7 \div 1 = 7$
	$2 \times 1 = 2$	$7 \times 1 = 7$	$10 \div 1 = 10$
	$3 \times 1 = 3$	$1 \times 1 = 1$	$3 \div 1 = 3$
	$4 \times 1 = 4$	$10 \times 1 = 10$	$9 \div 1 = 9$
	$5 \times 1 = 5$	$6 \times 1 = 6$	$1 \div 1 = 1$
	$6 \times 1 = 6$	$2 \times 1 = 2$	$4 \div 1 = 4$
	$7 \times 1 = 7$	$5 \times 1 = 5$	$5 \div 1 = 5$
	$8 \times 1 = 8$	$8 \times 1 = 8$	$8 \div 1 = 8$
	$9 \times 1 = 9$	$4 \times 1 = 4$	$2 \div 1 = 2$
	$10 \times 1 = 10$	$9 \times 1 = 9$	$6 \div 1 = 6$

	× In Order	× Mixed Up
<b>0s</b>	$1 \times 0 = 0$	$3 \times 0 = 0$
	$2 \times 0 = 0$	$7 \times 0 = 0$
	$3 \times 0 = 0$	$1 \times 0 = 0$
	$4 \times 0 = 0$	$10 \times 0 = 0$
	$5 \times 0 = 0$	$6 \times 0 = 0$
	$6 \times 0 = 0$	$2 \times 0 = 0$
	$7 \times 0 = 0$	$5 \times 0 = 0$
	$8 \times 0 = 0$	$8 \times 0 = 0$
	$9 \times 0 = 0$	$4 \times 0 = 0$
	$10 \times 0 = 0$	$9 \times 0 = 0$

Multiply or divide to find the unknown numbers.  
Then check your answers at the bottom of this page.

1.  $4 \times 1 = \square$

2.  $12 \div 3 = \square$

3.  $7 * 0 = \square$
4.  $0 / 5 = \square$

5.  $4 \bullet \square = 8$

6.  $\frac{2}{1} = \square$
7.  $10 \times 1 = \square$

8.  $\frac{0}{4} = \square$

9.  $1 \times 0 = \square$
10.  $\square \overline{)9}$

11.  $10 \bullet 9 = \square$

12.  $0 \div 1 = \square$
13.  $3 * \square = 3$

14.  $\frac{8}{1} = \square$

15.  $0 \bullet 7 = \square$
16.  $24 / 3 = \square$

17.  $1 \div 1 = \square$

18.  $10 * 2 = \square$
19.  $\square \times 3 = 0$

20.  $\square \overline{)18}$

21.  $1 \times \square = 4$
22.  $\square \times 5 = 25$

23.  $6 \bullet 9 = \square$

24.  $10 \div 1 = \square$

1. 4
2. 4
3. 0
4. 0
5. 2
6. 2
7. 10
8. 0
9. 0
10. 3
11. 90
12. 0
13. 1
14. 8
15. 0
16. 8
17. 1
18. 20
19. 0
20. 6
21. 4
22. 5
23. 54
24. 10

**Homework****Study Plan**

Homework Helper

**Complete.**

1.  $3 \times (4 \times 2) = \boxed{24}$

2.  $(5 \times 2) \times 8 = \boxed{80}$

3.  $5 \times (0 \times 9) = \boxed{0}$

4.  $25 \times 1 = \boxed{25}$

5.  $3 \times 9 = 9 \times \boxed{3} = \boxed{27}$

6.  $6 \times (3 \times 2) = \boxed{36}$

**Write an equation and solve the problem.**

7. Paul put birthday candles on his brother's cake.

He arranged them in an array with 8 rows and 1 column. How many candles did he put on the cake?  $8 \times 1 = c$ ,  $c = 8$ ; 8 candles

8. There are 24 people in the brass section of the marching band. They stood in an array with 4 people in each row. How many rows were there?

$24 \div 4 = p$  or  $p \times 4 = 24$ ,  $p = 6$ ; 6 rows

9. Freya doesn't like peppers, so she grew 0 peppers in her garden. She divided the peppers equally among her 4 cousins. How many peppers did each cousin get?
- $0 \div 4 = p$  or  $p \times 4 = 0$ ,  $p = 0$ ; 0 peppers

10. Cal had 6 comic books. After he gave 1 comic book to each of his cousins, he had none left. How many cousins does Cal have?

$6 \div 1 = c$  or  $c \times 1 = 6$ ,  $c = 6$ ; 6 cousins

# Remembering

Solve each problem.

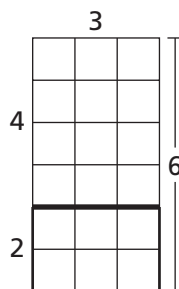
1. Find the area of the large rectangle by finding the area of the two small rectangles and adding them.

$$(2 \times 3) + (4 \times 3) = 6 + 12 = 18,$$

**18 square units**

2. Find the area of the large rectangle by multiplying the number of rows by the number of squares units in each row.

$$6 \times 3 = 18; 18 \text{ square units}$$



Write an equation and solve the problem. **Equations and variables may vary. Samples are given.**

3. Dwight has 72 pennies in a jar. He takes out 9 pennies. How many pennies are in the jar now?

$$72 - 9 = p, p = 63; 63 \text{ pennies}$$

4. There are 3 soccer bags. Each bag has 7 soccer balls. How many soccer balls are there in all?

$$3 \times 7 = b, b = 21; 21 \text{ balls}$$

Multiply or divide to find the unknown numbers.

5.  $3 \overline{)21}$  7

6. 8  $\times 10 = 80$

7.  $\frac{81}{9} =$  9

8.  $9 \times$  7  $= 63$

9.  $2 \cdot 6 =$  12

10. 25  $\div 5 = 5$

11. **Stretch Your Thinking** Write and solve an equation with the numbers 0 and 9. Then write an equation with the numbers 1 and 9 that has the same answer.

$$0 + 9 = 9 \text{ or } 9 + 0 = 9 \text{ and } 1 \times 9 = 9 \text{ or } 9 \times 1 = 9$$

**Homework****Study Plan**

Homework Helper

Read each problem and decide what type of problem it is.  
Write the letter from the list below. Then write an equation  
and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups Multiplication
- d. Equal Groups Division with an Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier  
(number of groups)

1. A farmer collected eggs from the henhouse. He can put 36 eggs in a carton. A carton will hold 6 eggs in a row. How many rows does the egg carton have?

b;  $36 \div 6 = 6$  rows

2. The Watertown science contest allowed teams of 5 students to compete. If 45 students entered the contest, how many teams competed?

e;  $45 \div 5 = 9$  teams

3. The Happy Feet Shoe Store is having a sale. 10 pairs of shoes are displayed on each row of the sale rack. If the rack has 8 rows, how many pairs of shoes are on sale?

a;  $8 \times 10 = 80$  pairs of shoes

4. Una has 5 goldfish. She bought 2 small water plants for each goldfish. How many plants did she buy?

c;  $5 \times 2 = 10$  plants

5. Yolanda made 16 barrettes. She divided the barrettes equally among her 4 friends. How many barrettes did each friend get?

d;  $16 \div 4 = 4$  barrettes

6. Carson has 12 baseball cards to give away. If he gives 3 cards to each friend, how many friends can he give cards to?

e;  $12 \div 3 = 4$  friends

# Remembering

You can combine multiplications you know to find multiplications you don't know.

- Find this product:  $3 \times 7 = \underline{21}$
- Find this product:  $4 \times 7 = \underline{28}$
- Use the answers to Exercises 1 and 2 to find this product:  $7 \times 7 = \underline{49}$

**Write an equation and solve the problem.**

*Equations and variables may vary. Samples are given.*

*Show your work.*

- Susan buys 9 packages of cups. There are 8 cups in each package. How many cups does she buy altogether?  
 $9 \times 8 = c, c = 72; 72 \text{ cups}$
- The football team has 30 players. The players line up to exercise with 5 in each row. How many rows are there?  
 $30 \div 5 = r \text{ or } r \times 5 = 30, r = 6; 6 \text{ rows}$
- Bill scored 63 points on his video game. He gets 9 points for each level he completes. How many levels did he complete?  
 $63 \div 9 = l \text{ or } l \times 9 = 63, l = 7; 7 \text{ levels}$

**Complete.**

- $4 \times (5 \times 1) = \boxed{20}$
- $6 \times 9 = 9 \times \boxed{6} = \boxed{54}$
- $(10 \times 1) \times 7 = \boxed{70}$
- $9 \times (5 \times 0) = \boxed{0}$
- $26 \times 1 = \boxed{26}$
- $5 \times (3 \times 3) = \boxed{45}$

- Stretch Your Thinking** Write a word problem using  $24 \div 3$ . Then solve your problem.

*Possible answer: There are 24 muffins. Mandy places 3 muffins in each bag. How many bags of muffins are there? 8 bags of muffins*



**Homework****Home Check Sheet 5: 1s and 0s**

<b>1s Multiplications</b>	<b>1s Divisions</b>	<b>0s Multiplications</b>
$1 \times 4 = 4$	$10 \div 1 = 10$	$4 \times 0 = 0$
$5 \bullet 1 = 5$	$5 \div 1 = 5$	$2 \bullet 0 = 0$
$7 * 1 = 7$	$7 \div 1 = 7$	$0 * 8 = 0$
$1 \times 8 = 8$	$9 \div 1 = 9$	$0 \times 5 = 0$
$1 \bullet 6 = 6$	$3 \div 1 = 3$	$6 \bullet 0 = 0$
$10 * 1 = 10$	$10 \div 1 = 10$	$0 * 7 = 0$
$1 \times 9 = 9$	$2 \div 1 = 2$	$0 \times 2 = 0$
$3 \bullet 1 = 3$	$8 \div 1 = 8$	$0 \bullet 9 = 0$
$1 * 2 = 2$	$6 \div 1 = 6$	$10 * 0 = 0$
$1 \times 1 = 1$	$9 \div 1 = 9$	$1 \times 0 = 0$
$8 \bullet 1 = 8$	$1 \div 1 = 1$	$0 \bullet 6 = 0$
$1 * 7 = 7$	$5 \div 1 = 5$	$9 * 0 = 0$
$1 \times 5 = 5$	$3 \div 1 = 3$	$0 \times 4 = 0$
$6 \bullet 1 = 6$	$4 \div 1 = 4$	$3 \bullet 0 = 0$
$1 * 1 = 1$	$2 \div 1 = 2$	$0 * 3 = 0$
$1 \times 10 = 10$	$8 \div 1 = 8$	$8 \times 0 = 0$
$9 \bullet 1 = 9$	$4 \div 1 = 4$	$0 \bullet 10 = 0$
$4 * 1 = 4$	$7 \div 1 = 7$	$0 * 1 = 0$
$2 \times 1 = 2$	$1 \div 1 = 1$	$5 \times 0 = 0$
$1 \bullet 3 = 3$	$6 \div 1 = 6$	$7 \bullet 0 = 0$

**Homework****Home Check Sheet 6: Mixed 3s, 4s, 0s, and 1s**

<b>3s, 4s, 0s, 1s Multiplications</b>	<b>3s, 4s, 0s, 1s Multiplications</b>	<b>3s, 4s, 1s Divisions</b>	<b>3s, 4s, 1s Divisions</b>
$5 \times 3 = 15$	$0 \times 5 = 0$	$18 / 3 = 6$	$4 / 1 = 4$
$6 \bullet 4 = 24$	$10 \bullet 1 = 10$	$20 \div 4 = 5$	$21 \div 3 = 7$
$9 * 0 = 0$	$6 * 3 = 18$	$1 / 1 = 1$	$16 / 4 = 4$
$7 \times 1 = 7$	$2 \times 4 = 8$	$21 \div 3 = 7$	$9 \div 1 = 9$
$3 \bullet 3 = 9$	$5 \bullet 0 = 0$	$12 / 4 = 3$	$15 / 3 = 5$
$4 * 7 = 28$	$1 * 2 = 2$	$5 \div 1 = 5$	$8 \div 4 = 2$
$0 \times 10 = 0$	$10 \times 3 = 30$	$15 / 3 = 5$	$5 / 1 = 5$
$1 \bullet 6 = 6$	$5 \bullet 4 = 20$	$24 \div 4 = 6$	$30 \div 3 = 10$
$3 * 4 = 12$	$0 * 8 = 0$	$7 / 1 = 7$	$12 / 4 = 3$
$5 \times 4 = 20$	$6 \times 3 = 18$	$12 / 3 = 4$	$8 / 1 = 8$
$0 \bullet 5 = 0$	$10 \bullet 3 = 30$	$36 \div 4 = 9$	$27 \div 3 = 9$
$9 * 1 = 9$	$9 * 4 = 36$	$6 / 1 = 6$	$40 / 4 = 10$
$2 \times 3 = 6$	$1 \times 0 = 0$	$12 \div 3 = 4$	$4 \div 1 = 4$
$3 \bullet 4 = 12$	$1 \bullet 6 = 6$	$16 / 4 = 4$	$9 / 3 = 3$
$0 * 9 = 0$	$3 * 6 = 18$	$7 \div 1 = 7$	$16 \div 4 = 4$
$1 \times 5 = 5$	$7 \times 4 = 28$	$9 / 3 = 3$	$10 / 1 = 10$
$2 \bullet 3 = 6$	$6 \bullet 0 = 0$	$8 \div 4 = 2$	$9 \div 3 = 3$
$4 * 4 = 16$	$8 * 1 = 8$	$2 \div 1 = 2$	$20 \div 4 = 5$
$9 \times 0 = 0$	$3 \times 9 = 27$	$6 / 3 = 2$	$6 / 1 = 6$
$1 \bullet 1 = 1$	$1 \bullet 4 = 4$	$32 \div 4 = 8$	$24 \div 3 = 8$

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.***Show your work.***Equations and letters for variables may vary. Samples are given.**

1. Wendy gave 54 apples to her neighbors.

She gave away a total of 6 bags of apples.

She put the same number of apples in each bag. How many apples were in each bag?

$$54 \div 6 = a \text{ or } 6 \times a = 54; a = 9; 9 \text{ apples}$$

2. Dillon had a box of 45 toy trucks. He gave the trucks to his brother but kept 9 trucks for himself. How many trucks did Dillon give to his brother?

$$45 - 9 = t; t = 36; 36 \text{ trucks}$$

3. Melissa put 18 stickers in her new sticker album. She put them in 6 rows. She put the same number of stickers in each row. How many stickers did she put in each row?

$$18 \div 6 = s \text{ or } 6 \times s = 18; s = 3; 3 \text{ stickers}$$

4. Yan took photographs at the zoo. He took 5 photos in each of the 6 animal houses. How many photos did he take?

$$6 \times 5 = p; p = 30; 30 \text{ photos}$$

5. Janie stacked some books at the library. She stacked 6 books each in 7 different piles. How many books were in the piles?

$$7 \times 6 = b; b = 42; 42 \text{ books}$$

# Remembering

Multiply or divide to find the unknown numbers.

1.  $\frac{72}{9} = \boxed{8}$

2.  $2 * \boxed{7} = 14$

3.  $40 \div 10 = \boxed{4}$

Equations and variables may vary. Samples are given.

Write an equation and solve the problem.

4. Brian has 0 crackers on his plate and divides them among his 5 friends. How many crackers does each friend get?

$0 \div 5 = c$  or  $5 \times c = 0$ ,  $c = 0$ ; 0 crackers

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

5. Tiffany is in the bike shop. She counts 27 wheels on all of the tricycles. How many tricycles are in the bike shop?

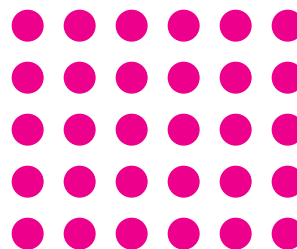
$e$ :  $27 \div 3 = 9$  tricycles

6. John buys 4 bags of apples. There are 6 apples in each bag. How many apples does John buy?

$c$ ;  $4 \times 6 = 24$  apples

7. **Stretch Your Thinking** Write a word problem that can be solved using the array shown.

Possible answer: There are 5 rows of desks in the classroom. There are 6 desks in each row. How many desks are there in the classroom?  $5 \times 6 = 30$  desks



**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.****Equations and letters for variables may vary. Samples are given.**

1. Maili rode her bike 10 miles every day for 5 days. How many miles did she ride?  
 $5 \times 10 = m; m = 50; 50 \text{ miles}$
2. Leslie gave 72 balloons to children at the fair. After the fair, she had 9 balloons left. How many balloons did Leslie start with?  
 $b = 72 + 9, b = 81; 81 \text{ balloons}$
3. Tony hung some photographs on one wall in his room. He hung them in 3 rows, with 4 photos in each row. How many photos did Tony hang?  
 $3 \times 4 = p; p = 12; 12 \text{ photos}$
4. Pepe sent 15 gifts to his family members. He sent an equal amount of gifts to 3 different addresses. How many gifts did he send to each address?  
 $15 \div 3 = g \text{ or } 3 \times g = 15; g = 5; 5 \text{ gifts}$
5. At the Shady Acres Stables, there are 5 horses in each barn. There are 4 barns. How many horses are at Shady Acres?  
 $4 \times 5 = h; h = 20; 20 \text{ horses}$
6. Sixty students are in the marching band. There are 10 rows of students. How many students are in each row?  
 $60 \div 10 = s \text{ or } 10 \times s = 60; s = 6; 6 \text{ students}$
7. Danielle has 35 dolls in her collection. She wants to display them on 5 shelves with the same number of dolls on each shelf. How many dolls should she put on each shelf?  
 $35 \div 5 = d \text{ or } 5 \times d = 35; d = 7; 7 \text{ dolls}$
8. There are 9 players on a baseball team. There are 6 teams in the league. How many baseball players are in the league?  
 $6 \times 9 = p; p = 54; 54 \text{ players}$

# Remembering

Complete.

1.  $5 \times (2 \times 4) =$  40

2.  $24 \times 1 =$  24

3.  $(9 \times 1) \times 5 =$  45

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

4. Mrs. Patel puts away the crayons. The box holds 63 crayons. She puts 9 in each row. How many rows does the box have?

b:  $63 \div 9 = 7$  rows

5. Jackson is planting a garden. He puts 10 corn seeds in a row. If he plants 5 rows of corn seeds, how many corn seeds does he plant?

a:  $5 \times 10 = 50$  corn seeds

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

*Show your work.*

6. The team has 32 baseball bats in bags. There are 4 bags of bats. Each bag has the same number of bats. How many bats are in each bag?

$32 \div 4 = b$  or  $4 \times b = 32$ ;  $b = 8$  bats

7. **Stretch Your Thinking** Each of 5 children is holding up 10 fingers. Explain 3 different ways to find how many fingers are being held up.

Possible answers: I can multiply  $5 \times 10 = 50$ ; I can count by 10s: 10, 20, 30, 40, 50; I can count by 5s: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50; or I can multiply  $5 \times 5$  two times and add the products  $25 + 25 = 50$ .

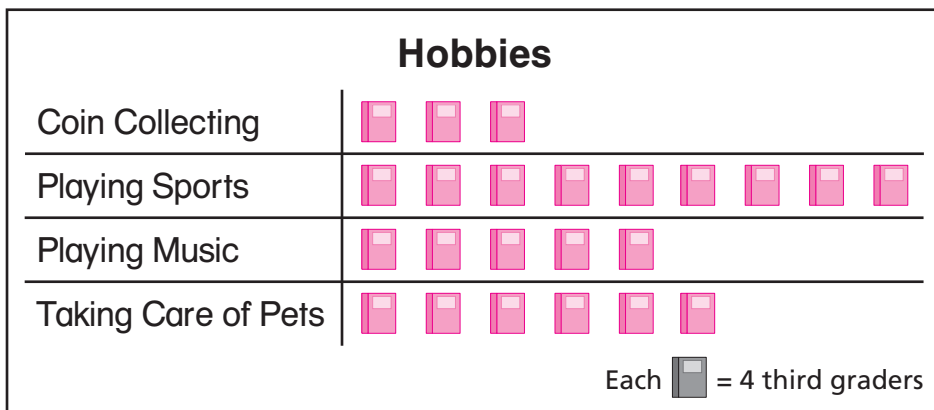
# Homework

**Find the number.**

1. I am 5 more than 6 times 10. What number am I? 65
2. I am 3 less than 8 times 4. What number am I? 29
3. 7 times a number is 21. What is the number? 3
4. 9 times a number is 18. What is the number? 2
5. Use the chart to complete the pictograph.

What is your hobby?

Hobby	Number of Students
Coin Collecting	12
Playing Sports	36
Playing Music	20
Taking Care of Pets	24



## Remembering

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

1. There are 40 toys in 5 boxes. Each box has the same number of toys. How many toys are in each box?

d:  $40 \div 5 = 8$  toys

2. Sangeeta has two dogs. She buys 2 collars for each of her dogs. How many collars does she buy?

c:  $2 \times 2 = 4$  collars

**Write an equation and solve the problem.**

**Equations and letters for variables may vary. Samples are given.**

*Show your work.*

3. Darci puts 15 tulips in 5 vases. If she puts the same number of tulips in each vase, how many tulips will be in each vase?

$15 \div 5 = t$  or  $5 \times t = 15$ ;  $t = 3$  tulips

4. Miss Lin has 5 baskets. She puts 4 pears in each basket. How many pears are in the baskets?

$5 \times 4 = p$ ;  $p = 20$  pears

5. Steven receives an order for 80 flash drives. He puts the same number of flash drives in 10 boxes. How many flash drives are in each box?

$80 \div 10 = d$  or  $10 \times d = 80$ ;  $d = 8$  flash drives

6. **Stretch Your Thinking** Solve the riddle. I am 6 more than 2 times 9. What number am I? Now make up your own riddle for the number 68.

24; Possible answer: I am 4 less than  $9 \times 8$ .

What number am I?



**Homework**

Use this chart to practice your 6s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>6s</b>	$1 \times 6 = 6$	$2 \times 6 = 12$	$18 \div 6 = 3$
	$2 \times 6 = 12$	$8 \times 6 = 48$	$60 \div 6 = 10$
	$3 \times 6 = 18$	$5 \times 6 = 30$	$30 \div 6 = 5$
	$4 \times 6 = 24$	$9 \times 6 = 54$	$48 \div 6 = 8$
	$5 \times 6 = 30$	$1 \times 6 = 6$	$12 \div 6 = 2$
	$6 \times 6 = 36$	$7 \times 6 = 42$	$6 \div 6 = 1$
	$7 \times 6 = 42$	$4 \times 6 = 24$	$36 \div 6 = 6$
	$8 \times 6 = 48$	$3 \times 6 = 18$	$24 \div 6 = 4$
	$9 \times 6 = 54$	$10 \times 6 = 60$	$54 \div 6 = 9$
	$10 \times 6 = 60$	$6 \times 6 = 36$	$42 \div 6 = 7$

**Homework**

Multiply or divide to find the unknown numbers.

Then check your answers at the bottom of this page.

1.  $5 \times 5 = \square$

2.  $12 \div 6 = \square$

3.  $7 * 4 = \square$

4.  $42 / 6 = \square$

5.  $6 \bullet \square = 48$

6.  $\frac{6}{1} = \square$

7.  $10 \times 6 = \square$

8.  $\begin{array}{r} \square \\ 9 \overline{)27} \end{array}$

9.  $6 \times 0 = \square$

10.  $20 / 4 = \square$

11.  $6 \bullet 6 = \square$

12.  $18 \div 3 = \square$

13.  $9 * \square = 54$

14.  $\frac{60}{6} = \square$

15.  $2 \bullet 7 = \square$

16.  $16 / 4 = \square$

17.  $6 \div 6 = \square$

18.  $6 * 7 = \square$

19.  $\square \times 7 = 0$

20.  $\begin{array}{r} \square \\ 9 \overline{)45} \end{array}$

21.  $1 \times \square = 10$

1. 25 2. 2 3. 28 4. 7 5. 8 6. 6 7. 60 8. 3 9. 0 10. 5 11. 36  
12. 6 13. 6 14. 10 15. 14 16. 4 17. 1 18. 42 19. 0 20. 5 21. 10

**Homework****Study Plan**

Homework Helper

**Find the unknown number.**

1.  $6 \times \boxed{9} = 54$

2.  $\boxed{6} \times 7 = 42$

3.  $6 \times \boxed{3} = 18$

4.  $\boxed{48} \div 6 = 8$

5.  $36 \div \boxed{6} = 6$

6.  $\boxed{30} \div 6 = 5$

**Solve each problem.**

7. Tim has 6 cats and 4 birds for pets. How many pets does Tim have?

10 pets

8. Six friends decided to go to the movies. If each person spent \$9 to buy tickets, what was the total amount of money spent on tickets?

\$54

9. Jing charges \$7 for each lawn she mows. Last week, she mowed 6 lawns. How much money did she earn from mowing lawns?

\$42

10. The grocery store is having a sale on six-packs of bottled water. Raj bought 48 bottles in all. How many six-packs did he buy?

8 six-packs

11. The desks in Ms. Toledo's classroom are arranged in 6 equal rows. There are 30 desks in the room. How many desks are in each row?

5 desks

12. Kendall arranged her pennies in an array with 6 rows and 6 columns. How many pennies does Kendall have?

36 pennies

# Remembering

Multiply or divide to find the unknown numbers.

1.  $35 \div 5 = \boxed{7}$

2.  $2 * \boxed{8} = 16$

3.  $5 \overline{)10} = \boxed{2}$

Write an equation and solve the problem.

Variables may vary.  
Samples are given.

4. Olivia arranges strawberries on her plate. She arranges them in 5 rows and 1 column. How many strawberries does she arrange on her plate?

$5 \times 1 = s, s = 5; 5 \text{ strawberries}$

Read each problem and decide what type of problem it is.

Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

5. The store owner has 32 new CDs. She divides them equally among 4 shelves. How many CDs are on each shelf?

$d; 32 \div 4 = 8 \text{ CDs}$

6. Evan has 5 notebooks. There are 4 dividers in each notebook. How many dividers are in the notebooks?

$c; 5 \times 4 = 20 \text{ dividers}$

7. **Stretch Your Thinking** Anna has 12 baseballs to display in her store window. She wants to display them in equal groups. List all the ways Anna can display the baseballs in which each group has the same number of baseballs.

$12 \text{ baseballs in } 1 \text{ group, } 2 \text{ baseballs in } 6 \text{ groups, } 3 \text{ baseballs}$

$\text{in } 4 \text{ groups, } 4 \text{ baseballs in } 3 \text{ groups, } 6 \text{ baseballs in } 2 \text{ groups,}$

$1 \text{ baseball in } 12 \text{ groups}$

## Homework

## Home Study Sheet C

6s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 6 = 6$	$10 \times 6 = 60$	$54 \div 6 = 9$
$2 \times 6 = 12$	$8 \times 6 = 48$	$30 \div 6 = 5$
$3 \times 6 = 18$	$2 \times 6 = 12$	$12 \div 6 = 2$
$4 \times 6 = 24$	$6 \times 6 = 36$	$60 \div 6 = 10$
$5 \times 6 = 30$	$4 \times 6 = 24$	$48 \div 6 = 8$
$6 \times 6 = 36$	$1 \times 6 = 6$	$36 \div 6 = 6$
$7 \times 6 = 42$	$9 \times 6 = 54$	$6 \div 6 = 1$
$8 \times 6 = 48$	$3 \times 6 = 18$	$42 \div 6 = 7$
$9 \times 6 = 54$	$7 \times 6 = 42$	$18 \div 6 = 3$
$10 \times 6 = 60$	$5 \times 6 = 30$	$24 \div 6 = 4$

7s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 7 = 7$	$6 \times 7 = 42$	$70 \div 7 = 10$
$2 \times 7 = 14$	$8 \times 7 = 56$	$14 \div 7 = 2$
$3 \times 7 = 21$	$5 \times 7 = 35$	$28 \div 7 = 4$
$4 \times 7 = 28$	$9 \times 7 = 63$	$56 \div 7 = 8$
$5 \times 7 = 35$	$4 \times 7 = 28$	$42 \div 7 = 6$
$6 \times 7 = 42$	$10 \times 7 = 70$	$63 \div 7 = 9$
$7 \times 7 = 49$	$3 \times 7 = 21$	$21 \div 7 = 3$
$8 \times 7 = 56$	$1 \times 7 = 7$	$49 \div 7 = 7$
$9 \times 7 = 63$	$7 \times 7 = 49$	$7 \div 7 = 1$
$10 \times 7 = 70$	$2 \times 7 = 14$	$35 \div 7 = 5$

8s		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 8 = 8$	$6 \times 8 = 48$	$16 \div 8 = 2$
$2 \times 8 = 16$	$10 \times 8 = 80$	$40 \div 8 = 5$
$3 \times 8 = 24$	$7 \times 8 = 56$	$72 \div 8 = 9$
$4 \times 8 = 32$	$2 \times 8 = 16$	$32 \div 8 = 4$
$5 \times 8 = 40$	$4 \times 8 = 32$	$8 \div 8 = 1$
$6 \times 8 = 48$	$8 \times 8 = 64$	$80 \div 8 = 10$
$7 \times 8 = 56$	$5 \times 8 = 40$	$64 \div 8 = 8$
$8 \times 8 = 64$	$10 \times 8 = 80$	$24 \div 8 = 3$
$9 \times 8 = 72$	$3 \times 8 = 24$	$56 \div 8 = 7$
$10 \times 8 = 80$	$1 \times 8 = 8$	$48 \div 8 = 6$

squares		
Count-bys	Mixed Up $\times$	Mixed Up $\div$
$1 \times 1 = 1$	$3 \times 3 = 9$	$25 \div 5 = 5$
$2 \times 2 = 4$	$9 \times 9 = 81$	$4 \div 2 = 2$
$3 \times 3 = 9$	$4 \times 4 = 16$	$81 \div 9 = 9$
$4 \times 4 = 16$	$6 \times 6 = 36$	$9 \div 3 = 3$
$5 \times 5 = 25$	$2 \times 2 = 4$	$36 \div 6 = 6$
$6 \times 6 = 36$	$7 \times 7 = 49$	$100 \div 10 = 10$
$7 \times 7 = 49$	$10 \times 10 = 100$	$16 \div 4 = 4$
$8 \times 8 = 64$	$1 \times 1 = 1$	$49 \div 7 = 7$
$9 \times 9 = 81$	$5 \times 5 = 25$	$1 \div 1 = 1$
$10 \times 10 = 100$	$8 \times 8 = 64$	$64 \div 8 = 8$

Multiply or divide to find the unknown numbers.  
Then check your answers at the bottom of this page.

1.  $6 \times 6 = \square$

2.  $20 \div 4 = \square$

3.  $9 \times 9 = \square$
4.  $32 \div 4 = \square$

5.  $9 \bullet \square = 54$

6.  $\frac{30}{10} = \square$
7.  $5 \times 0 = \square$

8.  $\frac{48}{6} = \square$

9.  $3 \times 6 = \square$
10.  $\square \overline{)30}$

11.  $8 \bullet 4 = \square$

12.  $12 \div 6 = \square$
13.  $6 \times \square = 42$

14.  $\frac{6}{6} = \square$

15.  $3 \bullet 4 = \square$
16.  $15 \div 5 = \square$

17.  $10 \div 10 = \square$

18.  $2 \times 7 = \square$
19.  $\square \times 2 = 10$

20.  $\square \overline{)18}$

21.  $10 \times \square = 70$

1. 36 2. 5 3. 81 4. 8 5. 6 6. 3 7. 0 8. 8 9. 18 10. 5 11. 32

12. 2 13. 7 14. 1 15. 12 16. 3 17. 1 18. 14 19. 5 20. 3 21. 7

**Homework****Study Plan**

Homework Helper

**Complete each Unknown Number puzzle.**

1.

×	4	3	6
9	36	27	54
2	8	6	12
3	12	9	18

2.

×	7	5	6
4	28	20	24
6	42	30	36
8	56	40	48

3.

×	8	6	4
5	40	30	20
7	56	42	28
3	24	18	12

**Solve each problem. Label your answers with the correct units.**

4. Raul built a rectangular tabletop with a length of 3 feet and a width of 6 feet. What is the area of the tabletop?

18 square feet

5. Li Fong covered the rectangular floor of his tree house with 48 square feet of carpeting. If one side of the floor has a length of 6 feet, what is the length of the adjacent side?

8 feet

6. Frances wants to paint a rectangular wall that has a width of 8 feet and a height of 9 feet. She has a quart of paint that will cover 85 square feet. What is the area of the wall? Does Frances have enough paint?

72 square feet; yes

7. Willis cut out a paper rectangle with an area of 42 square centimeters. If one side has a length of 6 centimeters, what is the length of the adjacent side?

7 centimeters

**Remembering****Complete.**

1.  $3 \times (5 \times 1) =$  15

2.  $(2 \times 5) \times 3 =$  30

3.  $(0 \times 4) \times 9 =$  0

4.  $22 \times 1 =$  22

5.  $4 \times 7 = 7 \times$  4  $=$  28

6.  $(3 \times 3) \times 6 =$  54

**Read the problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.**

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Division with Unknown Group Size
- e. Equal Division with an Unknown Multiplier (number of groups)

7. Andrew has 18 invitations to write. If he writes 3 invitations a day, how many days will it take him to finish?

e;  $18 \div 3 = 6$  days

---

**Solve each problem.**

8. Brian buys 6 video games. They cost \$10 each. How much does he spend on the video games?

\$60

---

9. Sharon plants 48 rose bushes. Each row has 6 rose bushes. How many rows of rose bushes does Sharon plant?

8 rows

---

10. **Stretch Your Thinking** Ming's rug has a length that is 2 times its width. The area of the rug is 8 square feet. What is the length and width of Ming's rug?

length: 4 feet; width: 2 feet

---



**Homework**

Use this chart to practice your 8s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

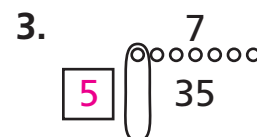
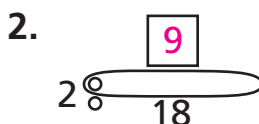
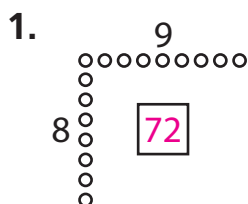
	× In Order	× Mixed Up	÷ Mixed Up
<b>8s</b>	$1 \times 8 = 8$	$3 \times 8 = 24$	$40 \div 8 = 5$
	$2 \times 8 = 16$	$9 \times 8 = 72$	$56 \div 8 = 7$
	$3 \times 8 = 24$	$6 \times 8 = 48$	$24 \div 8 = 3$
	$4 \times 8 = 32$	$4 \times 8 = 32$	$72 \div 8 = 9$
	$5 \times 8 = 40$	$2 \times 8 = 16$	$8 \div 8 = 1$
	$6 \times 8 = 48$	$8 \times 8 = 64$	$48 \div 8 = 6$
	$7 \times 8 = 56$	$1 \times 8 = 8$	$32 \div 8 = 4$
	$8 \times 8 = 64$	$5 \times 8 = 40$	$64 \div 8 = 8$
	$9 \times 8 = 72$	$10 \times 8 = 80$	$16 \div 8 = 2$
	$10 \times 8 = 80$	$7 \times 8 = 56$	$80 \div 8 = 10$

**Homework****Home Check Sheet 7: 6s and 8s**

<b>6s Multiplications</b>	<b>6s Divisions</b>	<b>8s Multiplications</b>	<b>8s Divisions</b>
$10 \times 6 = 60$	$24 \div 6 = 4$	$2 \times 8 = 16$	$72 \div 8 = 9$
$6 \bullet 4 = 24$	$48 \div 6 = 8$	$8 \bullet 10 = 80$	$16 \div 8 = 2$
$6 * 7 = 42$	$60 \div 6 = 10$	$3 * 8 = 24$	$40 \div 8 = 5$
$2 \times 6 = 12$	$12 \div 6 = 2$	$9 \times 8 = 72$	$8 \div 8 = 1$
$6 \bullet 5 = 30$	$42 \div 6 = 7$	$8 \bullet 4 = 32$	$80 \div 8 = 10$
$6 * 8 = 48$	$30 \div 6 = 5$	$8 * 7 = 56$	$48 \div 8 = 6$
$9 \times 6 = 54$	$6 \div 6 = 1$	$5 \times 8 = 40$	$56 \div 8 = 7$
$6 \bullet 1 = 6$	$18 \div 6 = 3$	$8 \bullet 6 = 48$	$24 \div 8 = 3$
$6 * 6 = 36$	$54 \div 6 = 9$	$1 * 8 = 8$	$64 \div 8 = 8$
$6 \times 3 = 18$	$36 \div 6 = 6$	$8 \times 8 = 64$	$32 \div 8 = 4$
$6 \bullet 6 = 36$	$48 \div 6 = 8$	$4 \bullet 8 = 32$	$80 \div 8 = 10$
$5 * 6 = 30$	$12 \div 6 = 2$	$6 * 8 = 48$	$56 \div 8 = 7$
$6 \times 2 = 12$	$24 \div 6 = 4$	$8 \times 3 = 24$	$8 \div 8 = 1$
$4 \bullet 6 = 24$	$60 \div 6 = 10$	$7 \bullet 8 = 56$	$24 \div 8 = 3$
$6 * 9 = 54$	$6 \div 6 = 1$	$8 * 2 = 16$	$64 \div 8 = 8$
$8 \times 6 = 48$	$42 \div 6 = 7$	$8 \times 9 = 72$	$16 \div 8 = 2$
$7 \bullet 6 = 42$	$18 \div 6 = 3$	$8 \bullet 1 = 8$	$72 \div 8 = 9$
$6 * 10 = 60$	$36 \div 6 = 6$	$8 * 8 = 64$	$32 \div 8 = 4$
$1 \times 6 = 6$	$30 \div 6 = 5$	$10 \times 8 = 80$	$40 \div 8 = 5$
$4 \bullet 6 = 24$	$54 \div 6 = 9$	$5 \bullet 8 = 40$	$48 \div 8 = 6$

**Homework****Study Plan**

Homework Helper

**Find the unknown number for each Fast-Array Drawing.****Write an equation and solve the problem.**

4. Tyrone planted 3 seeds every day for 8 days. How many seeds did Tyrone plant?

$$8 \times 3 = 24, 24 \text{ seeds}$$

5. There are 6 players on a volleyball team. How many players are in a game with 2 teams?

$$2 \times 6 = 12; 12 \text{ players}$$

6. Joseph gave his 6 nephews \$48 for helping him clean out the garage. The boys divided the money equally. How much money did each boy get?

$$48 \div 6 = n, n = 8; \$8$$

7. Miki has 3 planting boxes for her flowers. Each box is 4 feet wide and 8 feet long. How much area for planting flowers does Miki have altogether?

$$8 \times 4 = 32, 32 + 32 + 32 = 96; 96 \text{ square feet}$$

# Remembering

Write an equation and solve the problem.

*Show your work.*

Variables may vary. Samples are given.

1. There are 0 tickets available. There are 6 people in line to purchase tickets. How many tickets did they purchase?

$$6 \times 0 = t; t = 0; 0 \text{ tickets}$$

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

2. Owen orders 9 boxes of hammers for the hardware store. Each box has 10 hammers. How many hammers does Owen order?

$$c; 9 \times 10 = 90 \text{ hammers}$$

3. Tameka has 12 granola bars for the bake sale. She puts 4 granola bars on each plate. How many plates does she fill?

$$e; 12 \div 4 = 3 \text{ plates}$$

Complete each Unknown Number puzzle.

4.

×	3	5	9
4	12	20	36
6	18	30	54
2	6	10	18

5.

×	2	9	6
5	10	45	30
3	6	27	18
7	14	63	42

6.

×	4	7	3
5	20	35	15
9	36	63	27
6	24	42	18

7. **Stretch Your Thinking** A pizza parlor has 8 different toppings and 3 different cheeses to choose from on the menu. How many pizza combinations are possible if each pizza has 1 topping and 1 cheese?

$$24 \text{ pizza combinations}$$

**Homework****Study Plan**

Homework Helper

**Solve. Then circle what type it is and what operation you used.**

1. The area of a photograph is 15 square inches. If the width of the photograph is 3 inches, what is its length?

5 inches

array    equal groups    area  
multiplication    division

2. Mrs. Divita divided 64 beetles equally among the 8 students in the science club. How many beetles did each student receive?

8 beetles

array    equal groups    area  
multiplication    division

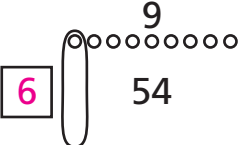
3. Write your own problem that is the same type as Problem 1.

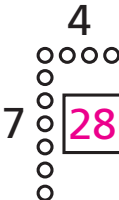
Answers will vary.

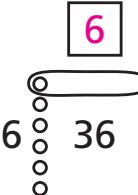
4. Write your own problem that is the same type as Problem 2.

Answers will vary.

**Find the unknown number for each Fast-Array Drawing.**

5. 

6. 

7. 

# Remembering

**Write an equation and solve the problem.**

*Equations and letters for variables may vary. Samples are given.*

*Show your work.*

1. Lucy puts 54 pictures in her photo album. She puts 9 photos on each page. How many pages does she fill?

$54 \div 9 = p$  or  $p \times 9 = 54$ ,  $p = 6$ ; 6 pages

2. Chris sets up 8 chairs in each row. He sets up 7 rows. How many chairs does Chris set up?

$7 \times 8 = c$ ;  $c = 56$ ; 56 chairs

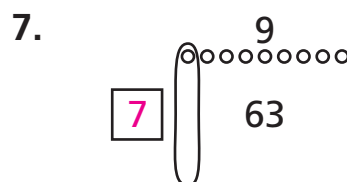
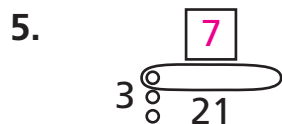
3. Trina places 4 peaches in each gift basket. She puts together 9 gift baskets to sell in her store. How many peaches does Trina use?

$9 \times 4 = p$ ,  $p = 36$ ; 36 peaches

4. Jorge has 15 science fair awards. He wants to display the same number of awards among 3 shelves. How many awards should he put on each shelf?

$15 \div 3 = a$  or  $3 \times a = 15$ ;  $a = 5$ ; 5 awards

**Find the unknown number for each Fast Array Drawing.**



8. **Stretch Your Thinking** Write a real world problem and equation using  $t = 5$ .

Answers will vary but should use  $t = 5$ . Greyson has 20 trains and 4 tracks. He places an equal number of trains on each track. How many trains are on each track?  $20 \div 4 = t$  or  $4 \times t = 20$ ;  $t = 5$ ; 5 trains

**Homework**

Use this chart to practice your 7s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

	× In Order	× Mixed Up	÷ Mixed Up
<b>7s</b>	$1 \times 7 = 7$	$5 \times 7 = 35$	$56 \div 7 = 8$
	$2 \times 7 = 14$	$1 \times 7 = 7$	$42 \div 7 = 6$
	$3 \times 7 = 21$	$10 \times 7 = 70$	$14 \div 7 = 2$
	$4 \times 7 = 28$	$2 \times 7 = 14$	$7 \div 7 = 1$
	$5 \times 7 = 35$	$9 \times 7 = 63$	$70 \div 7 = 10$
	$6 \times 7 = 42$	$3 \times 7 = 21$	$49 \div 7 = 7$
	$7 \times 7 = 49$	$8 \times 7 = 56$	$21 \div 7 = 3$
	$8 \times 7 = 56$	$4 \times 7 = 28$	$35 \div 7 = 5$
	$9 \times 7 = 63$	$7 \times 7 = 49$	$63 \div 7 = 9$
	$10 \times 7 = 70$	$6 \times 7 = 42$	$28 \div 7 = 4$

**Homework**

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  $7 \times 7 = \square$

2.  $\frac{64}{8} = \square$

3.  $5 \times 5 = \square$

4.  $28 \div 7 = \square$

5.  $9 \cdot \square = 27$

6.  $\frac{48}{6} = \square$

7.  $\square \times 9 = 63$

8.  $\begin{array}{r} \square \\ 7 \overline{)56} \end{array}$

9.  $10 \times \square = 30$

10.  $8 \times 5 = \square$

11.  $21 \div 3 = \square$

12.  $9 \times 2 = \square$

13.  $30 \div 6 = \square$

14.  $8 \cdot 5 = \square$

15.  $24 \div 3 = \square$

16.  $\begin{array}{r} \square \\ 3 \overline{)21} \end{array}$

17.  $90 \div 9 = \square$

18.  $2 \times 7 = \square$

19.  $6 \times \square = 42$

20.  $\frac{10}{2} = \square$

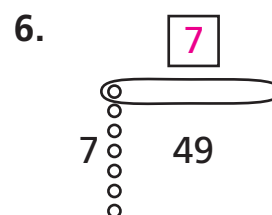
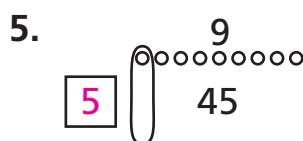
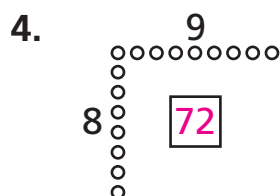
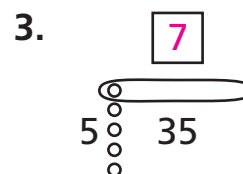
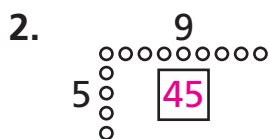
21.  $3 \cdot 9 = \square$

1. 49 2. 8 3. 25 4. 4 5. 3 6. 8 7. 7 8. 8 9. 3 10. 40 11. 7  
12. 18 13. 5 14. 40 15. 8 16. 7 17. 10 18. 14 19. 7 20. 5 21. 27



**Homework****Study Plan**

Homework Helper

**Find the unknown number for each Fast-Array Drawing.****Solve. Label your answers.**

7. Rachel plans to fence in an area 7 meters long by 7 meters wide for her dog to run in. How much area will her dog have to run in?

49 square meters

8. Shondra has 21 tropical fish. If she divides them evenly among 3 tanks, how many fish will be in each tank?

7 fish

9. Write a word problem that involves an array and multiplication. Write your problem on a separate sheet of paper for your teacher to collect.

# Remembering

Write an equation and solve the problem.

*Show your work.*

Equations and letters for variables may vary. Samples are given.

1. Sara picks 48 apples. She puts 6 apples in each basket. How many baskets does she fill?

$$48 \div 6 = b \text{ or } b \times 6 = 48; b = 8; 8 \text{ baskets}$$

2. Mrs. Lin places 5 pencils at each table in the classroom. There are 7 tables in the classroom. How many pencils does Mrs. Lin place on the tables?

$$5 \times 7 = p; p = 35; 35 \text{ pencils}$$

3. Gibson has an assignment to read 8 pages in his reading book. It takes him 2 minutes to read each page. How many minutes will it take him to finish the reading assignment?

$$8 \times 2 = m; m = 16; 16 \text{ minutes}$$

4. There are 4 paper towel rolls in each package. There are 7 packages of paper towel rolls on the shelf. How many paper towel rolls are on the shelf?

$$7 \times 4 = p; p = 28; 28 \text{ paper towel rolls}$$

Solve. Then circle what type it is and what operation you used.

5. The area of the paper is 80 square inches. If the width of the paper is 8 inches, what is its length?

$$10 \text{ inches}$$

6. The desks are in 6 rows, with 5 desks in each row. How many desks are in the classroom?

$$30 \text{ desks}$$

array

equal groups

area

array

equal groups

area

multiplication

division

multiplication

division

7. **Stretch Your Thinking** Write a word problem using 7 groups. Solve your problem.

Possible answer: Kelly has 7 boxes of clips. There are 2 clips in each box. How many clips in all are there? 14 clips

**Homework****Home Check Sheet 8: 7s and Squares**

<b>7s Multiplications</b>	<b>7s Divisions</b>	<b>Squares Multiplications</b>	<b>Squares Divisions</b>
$4 \times 7 = 28$	$14 \div 7 = 2$	$8 \times 8 = 64$	$81 \div 9 = 9$
$7 \bullet 2 = 14$	$28 \div 7 = 4$	$10 \bullet 10 = 100$	$4 \div 2 = 2$
$7 * 8 = 56$	$70 \div 7 = 10$	$3 * 3 = 9$	$25 \div 5 = 5$
$7 \times 7 = 49$	$56 \div 7 = 8$	$9 \times 9 = 81$	$1 \div 1 = 1$
$7 \bullet 1 = 7$	$42 \div 7 = 6$	$4 \bullet 4 = 16$	$100 \div 10 = 10$
$7 * 10 = 70$	$63 \div 7 = 9$	$7 * 7 = 49$	$36 \div 6 = 6$
$3 \times 7 = 21$	$7 \div 7 = 1$	$5 \times 5 = 25$	$49 \div 7 = 7$
$7 \bullet 6 = 42$	$49 \div 7 = 7$	$6 \bullet 6 = 36$	$9 \div 3 = 3$
$5 * 7 = 35$	$21 \div 7 = 3$	$1 * 1 = 1$	$64 \div 8 = 8$
$7 \times 9 = 63$	$35 \div 7 = 5$	$5 * 5 = 25$	$16 \div 4 = 4$
$7 \bullet 4 = 28$	$7 \div 7 = 1$	$1 \bullet 1 = 1$	$100 \div 10 = 10$
$9 * 7 = 63$	$63 \div 7 = 9$	$3 \bullet 3 = 9$	$49 \div 7 = 7$
$2 \times 7 = 14$	$14 \div 7 = 2$	$10 \times 10 = 100$	$1 \div 1 = 1$
$7 \bullet 5 = 35$	$70 \div 7 = 10$	$4 \times 4 = 16$	$9 \div 3 = 3$
$8 * 7 = 56$	$21 \div 7 = 3$	$9 * 9 = 81$	$64 \div 8 = 8$
$7 \times 3 = 21$	$49 \div 7 = 7$	$2 \times 2 = 4$	$4 \div 2 = 2$
$6 \bullet 7 = 42$	$28 \div 7 = 4$	$6 * 6 = 36$	$81 \div 9 = 9$
$10 * 7 = 70$	$56 \div 7 = 8$	$7 \times 7 = 49$	$16 \div 4 = 4$
$1 \times 7 = 7$	$35 \div 7 = 5$	$5 \bullet 5 = 25$	$25 \div 5 = 5$
$7 \bullet 7 = 49$	$42 \div 7 = 6$	$8 \bullet 8 = 64$	$36 \div 6 = 6$

Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1.  × 6 = 48

2. 56 ÷ 7 =

3. 10 ×  = 90
4. 64 ÷ 8 =

5. 9 •  = 63

6.  $\frac{25}{5}$  =
7. 8 × 9 =

8.  $\begin{array}{r} \square \\ 9 \overline{)36} \end{array}$

9. 7 \* 7 =
10. 6 \*  = 36

11.  $\frac{32}{4}$  =

12. 3 • 3 =
13. 30 ÷ 6 =

14. 16 ÷ 4 =

15. 8 \* 5 =
16. 6 × 4 =

17.  $\frac{81}{9}$  =

18. 5 × 7 =
19. 60 ÷ 6 =

20. 7 • 8 =

21. 42 ÷ 7 =
22.  $\begin{array}{r} \square \\ 6 \overline{)54} \end{array}$

23. 32 ÷ 8 =

24. 9 \* 9 =

1. 8

2. 8

3. 9

4. 8

5. 7

6. 5

7. 72

8. 4

9. 49

10. 6

11. 8

12. 9

13. 5

14. 4

15. 40

16. 24

17. 9

18. 35

19. 10

20. 56

21. 6

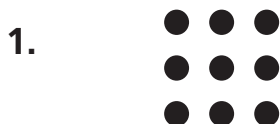
22. 9

23. 4

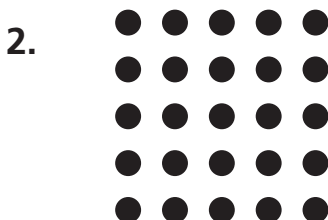
24. 81

**Homework****Study Plan**

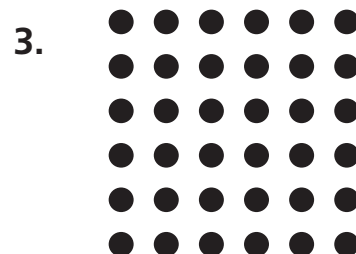
Homework Helper

**Write a multiplication equation for each square array.**

$$3 \times 3 = 9$$



$$5 \times 5 = 25$$



$$6 \times 6 = 36$$

**Solve.**

4. Julia used 1 foot square stone tiles to make a patio. She laid the tiles in a square, 7 tiles wide by 7 tiles long. What is the area of Julia's new patio?

49 square feet

5. Sal brought 2 dozen apples to a science club meeting. He divided the apples equally among the 8 people there. How many apples did he give each person?

3 apples

6. Leah has 21 crystals in her collection. Her brother Tomer has 7 crystals. How many more crystals does Leah have than Tomer?

14 more crystals

7. Emmanuel collected 49 leaves last week. He collected the same number of leaves each day. How many leaves did he collect on Monday?

7 leaves

**Complete.**

8.

×	6	4	8
4	24	16	32

9.

×	5	4	9
9	45	36	81

10.

×	8	7	3
8	64	56	24

# Remembering

**Write an equation and solve the problem.**

*Show your work.*

Equations and letters for variables may vary. Samples are given.

1. There are 5 birch trees in each row at the nursery. There are 9 rows of birch trees.

How many birch trees are in the nursery?

$$9 \times 5 = b; b = 45; 45 \text{ birch trees}$$

2. There are 54 dictionaries in the library. There are 6 shelves of dictionaries. Each shelf has the same number of dictionaries. How many dictionaries are on each shelf?

$$54 \div 6 = d \text{ or } 6 \times d = 54; d = 9; 9 \text{ dictionaries}$$

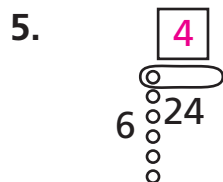
3. Samuel orders 6 boxes of robots for his store. There are 4 robots in each box. How many robots does Samuel order?

$$6 \times 4 = r; r = 24; 24 \text{ robots}$$

4. A pet store has 24 tiger fish in 3 aquariums. Each aquarium has the same number of tiger fish. How many tiger fish are in each aquarium?

$$24 \div 3 = t \text{ or } 3 \times t = 24; t = 8; 8 \text{ tiger fish}$$

**Find the unknown number for each Fast Array Drawing.**



8. **Stretch Your Thinking** Explain two different squares that can be made using the number 9.

$$3 \times 3 = 9 \text{ and } 9 \times 9 = 81$$

**Homework****Home Check Sheet 9: 6s, 7s, and 8s**

6s, 7s, and 8s Multiplications	6s, 7s, and 8s Multiplications	6s, 7s, and 8s Divisions	6s, 7s, and 8s Divisions
$1 \times 6 = 6$	$0 \times 8 = 0$	$24 / 6 = 4$	$54 / 6 = 9$
$6 \bullet 7 = 42$	$6 \bullet 2 = 12$	$21 \div 7 = 3$	$24 \div 8 = 3$
$3 * 8 = 24$	$4 * 7 = 28$	$16 / 8 = 2$	$14 / 7 = 2$
$6 \times 2 = 12$	$8 \times 3 = 24$	$24 \div 8 = 3$	$32 \div 8 = 4$
$7 \bullet 5 = 35$	$5 \bullet 6 = 30$	$14 / 7 = 2$	$18 / 6 = 3$
$8 * 4 = 32$	$7 * 2 = 14$	$30 \div 6 = 5$	$56 \div 7 = 8$
$6 \times 6 = 36$	$3 \times 8 = 24$	$35 / 7 = 5$	$40 / 8 = 5$
$8 \bullet 7 = 56$	$6 \bullet 4 = 24$	$24 \div 8 = 3$	$35 \div 7 = 5$
$9 * 8 = 72$	$0 * 7 = 0$	$18 / 6 = 3$	$12 / 6 = 2$
$6 \times 10 = 60$	$8 \times 1 = 8$	$12 / 6 = 2$	$21 / 7 = 3$
$7 \bullet 1 = 7$	$8 \bullet 6 = 48$	$42 \div 7 = 6$	$16 \div 8 = 2$
$8 * 3 = 24$	$7 * 9 = 63$	$56 / 8 = 7$	$42 / 6 = 7$
$5 \times 6 = 30$	$10 \times 8 = 80$	$49 \div 7 = 7$	$80 \div 8 = 10$
$4 \bullet 7 = 28$	$6 \bullet 10 = 60$	$16 / 8 = 2$	$36 / 6 = 6$
$2 * 8 = 16$	$3 * 7 = 21$	$60 \div 6 = 10$	$7 \div 7 = 1$
$7 \times 7 = 49$	$8 \times 4 = 32$	$54 / 6 = 9$	$64 / 8 = 8$
$7 \bullet 6 = 42$	$6 \bullet 5 = 30$	$8 \div 8 = 1$	$24 \div 6 = 4$
$8 * 8 = 64$	$7 * 4 = 28$	$28 \div 7 = 4$	$21 \div 7 = 3$
$9 \times 6 = 54$	$8 \times 8 = 64$	$72 / 8 = 9$	$49 / 7 = 7$
$10 \bullet 7 = 70$	$6 \bullet 9 = 54$	$56 \div 7 = 8$	$24 \div 8 = 3$

**Homework****Home Check Sheet 10: 0s–10s**

<b>0s–10s Multiplications</b>	<b>0s–10s Multiplications</b>	<b>0s–10s Divisions</b>	<b>0s–10s Divisions</b>
$9 \times 0 = 0$	$9 \times 4 = 36$	$9 / 1 = 9$	$90 / 10 = 9$
$1 \bullet 1 = 1$	$5 \bullet 9 = 45$	$12 \div 3 = 4$	$64 \div 8 = 8$
$2 * 3 = 6$	$6 * 10 = 60$	$14 / 2 = 7$	$15 / 5 = 3$
$1 \times 3 = 3$	$7 \times 3 = 21$	$20 \div 4 = 5$	$12 \div 6 = 2$
$5 \bullet 4 = 20$	$5 \bullet 3 = 15$	$10 / 5 = 2$	$14 / 7 = 2$
$7 * 5 = 35$	$4 * 1 = 4$	$48 \div 8 = 6$	$45 \div 9 = 5$
$6 \times 9 = 54$	$7 \times 5 = 35$	$35 / 7 = 5$	$8 / 1 = 8$
$4 \bullet 7 = 28$	$6 \bullet 3 = 18$	$60 \div 6 = 10$	$30 \div 3 = 10$
$1 * 8 = 8$	$8 * 7 = 56$	$81 / 9 = 9$	$16 / 4 = 4$
$9 \times 8 = 72$	$5 \times 8 = 40$	$20 / 10 = 2$	$8 / 2 = 4$
$2 \bullet 10 = 20$	$9 \bullet 9 = 81$	$16 \div 2 = 8$	$80 \div 10 = 8$
$0 * 7 = 0$	$9 * 10 = 90$	$30 / 5 = 6$	$36 / 4 = 9$
$4 \times 1 = 4$	$0 \times 0 = 0$	$49 \div 7 = 7$	$25 \div 5 = 5$
$2 \bullet 4 = 8$	$1 \bullet 0 = 0$	$60 / 6 = 10$	$42 / 7 = 6$
$10 * 3 = 30$	$1 * 6 = 6$	$30 \div 3 = 10$	$36 \div 6 = 6$
$8 \times 4 = 32$	$7 \times 2 = 14$	$8 / 1 = 8$	$90 / 9 = 10$
$5 \bullet 8 = 40$	$6 \bullet 3 = 18$	$16 \div 4 = 4$	$24 \div 8 = 3$
$4 * 6 = 24$	$4 * 5 = 20$	$16 \div 8 = 2$	$6 \div 2 = 3$
$7 \times 6 = 42$	$6 \times 6 = 36$	$40 / 10 = 4$	$9 / 3 = 3$
$1 \bullet 8 = 8$	$10 \bullet 7 = 70$	$36 \div 9 = 4$	$1 \div 1 = 1$



**Homework****Study Plan**

Homework Helper

**Solve.**

1. Sarah's chickens laid 3 dozen eggs over the weekend. She divided them equally into cartons to give away to her 6 closest neighbors. How many eggs did she put in each carton?

6 eggs

2. Latisha needs 60 square feet of cloth. She has a rectangular piece of cloth that measures 3 feet by 9 feet, and a square piece that measures 5 feet on a side. Does she have enough cloth? If not, how much more does she need?

no; 8 square feet more

3. Lucy has 6 sheets of stickers. Each sheet has 8 stickers. How many stickers does Lucy have?

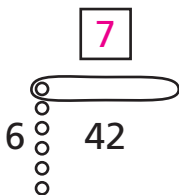
$6 \times 8 = 48$ , 48 stickers

4. A park ranger led 3 groups of hikers. There were 7 people in each group. How many hikers did she lead?

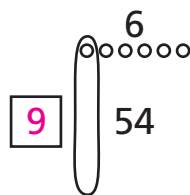
$3 \times 7 = 21$ , 21 hikers

**Find the unknown number for each Fast-Array.**

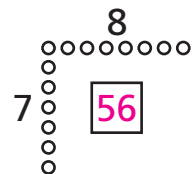
5.



6.



7.



# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

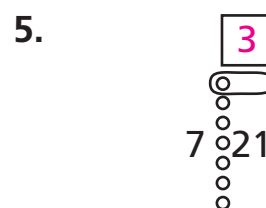
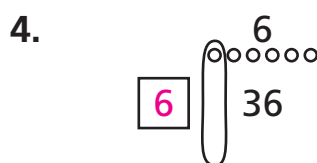
1. Adam has 60 plates. He places 10 plates on each table. How many tables does Adam place plates on?

$60 \div 10 = t$  or  $t \times 10 = 60$ ;  $t = 6$ ;  
6 tables

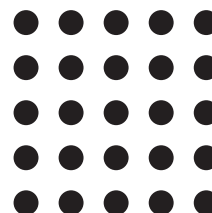
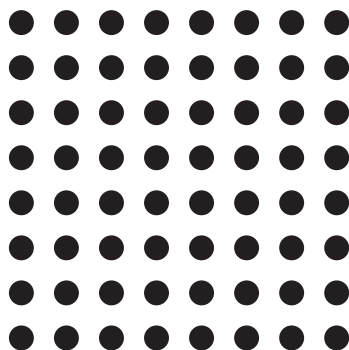
2. Hailey draws 35 leaves on her tree. She draws 5 leaves on each branch. How many branches are on her tree?

$35 \div 5 = b$  or  $b \times 5 = 35$ ;  $b = 7$ ;  
7 branches

Find the unknown number for each Fast Array Drawing.



Write a multiplication equation for each array.



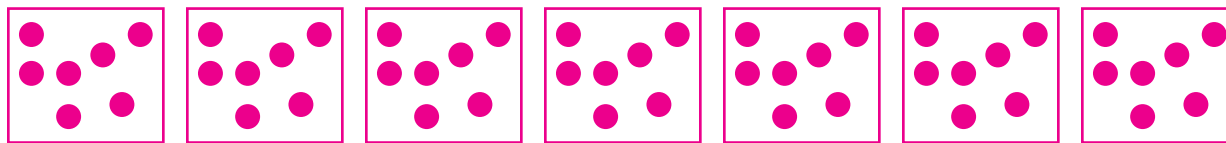
6.  $3 \times 3 = 9$

7.  $8 \times 8 = 64$

8.  $5 \times 5 = 25$

9. **Stretch Your Thinking** Draw a picture to show  $7 \times 7$ .

Drawings will vary. Check students' drawings. Possible drawing shown.



# Homework

## Study Plan

Homework Helper

**Write an equation to solve the problem.** Equations and letters for variables may vary. Samples are given.

1. Maria created artwork by placing all of her seashells in 4 rows on a wall. In each row, she arranged 8 seashells. How many seashells did Maria collect in all?















$$4 \times 8 = n, n = 32; 32 \text{ seashells}$$

2. Arturo collected 18 seashells. He wants to divide the seashells evenly among his 3 best friends. How many seashells will each friend receive?

$$18 \div 3 = n, n = 6; 6 \text{ seashells}$$

**Use the pictograph and key to solve.**

Katie planted pumpkins in the spring. Now she is selling them. This pictograph shows how many pumpkins she sold this weekend.

Friday	   
Saturday	      
Sunday	  

Key:  = 6 pumpkins

3. How many pumpkins did Katie sell on Friday?

$$4 \times 6 = n, n = 24; 24 \text{ pumpkins}$$

4. How many more pumpkins did she sell on Saturday than on Friday?

$$3 \times 6 = n, n = 18; 18 \text{ pumpkins}$$

5. How many pumpkins did Katie sell this weekend?

$$(4 \times 6) + (7 \times 6) + (3 \times 6) = n, n = 84; 84 \text{ pumpkins}$$

# Remembering

Equations and letters for variables may vary. Samples are given.

Write an equation and solve the problem.

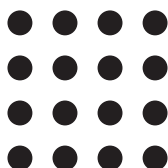
1. The fitness instructor puts the class into 10 rows. There are 6 people in each row. How many people are in the class?

$10 \times 6 = p$ ;  $p = 60$ ; 60 people

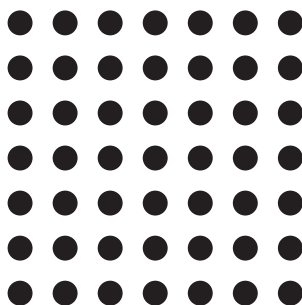
2. Jared has 40 stars. He puts the same number of stars in each of 5 rows. How many stars are in each row?

$40 \div 5 = b$  or  $5 \times b = 40$ ;  $b = 8$ ; 8 stars

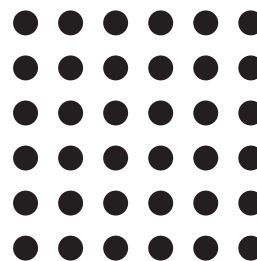
Write a multiplication equation for each array.



3.  $4 \times 4 = 16$



4.  $7 \times 7 = 49$



5.  $6 \times 6 = 36$

Solve.

6. Amanda has 8 boxes of markers. Each box has 7 markers. How many markers in all are in the boxes?

$8 \times 7 = m$ ;  $m = 56$ ; 56 markers

7. Alex has 7 shirts. He sews 6 buttons on each shirt. How many buttons does Alex sew on the shirts?

$7 \times 6 = b$ ;  $b = 42$ ; 42 buttons

8. **Stretch Your Thinking** Write a word problem with 16 for the product.

Possible answer: Ian has 4 pet rabbits. He gives  
each rabbit 4 carrots. How many carrots does Ian  
give his pet rabbits?

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.** Letters for variables and equations may vary.

1. Robert planted 7 trees behind Westwood School. He planted 6 times as many trees in front of the school. How many trees did he plant in front?

42 trees;  $7 \times 6 = n$ ,  $n = 42$

2. Nelson collected 58 cans of food during his town's food drive. Michael collected 67 cans of food. How many cans of food did they collect altogether?

125 cans of food;  $58 + 67 = n$ ,  $n = 125$

3. On a snorkeling trip, Betina spotted 27 different kinds of fish. Her younger sister Lucia spotted one third as many. How many different kinds of fish did Lucia spot?

9 kinds;  $27 \div 3 = n$ ,  $n = 9$

4. Arnon earned \$27 delivering newspapers last week. He spent \$9 on a book about snakes. How much money does he have left?

\$18;  $\$27 - 9 = n$ ,  $n = \$18$

**Write a question to finish each word problem. Then solve the problem.**

5. Sonya has 272 coins in her collection. Her brother Erez has 298 coins.

Question: Possible answer: How many coins do they have altogether?

Solution: 570 coins

6. Richard folded 32 shirts and stacked them in 4 equal piles.

Question: Possible answer: How many shirts were in each pile?

Solution: 8 shirts

# Remembering

Equations and letters for variables may vary. Samples are given.

Write an equation and solve the problem.

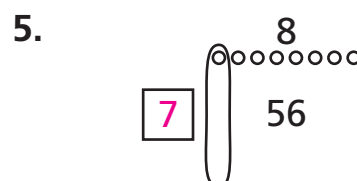
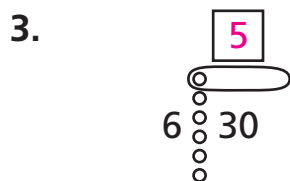
1. There are 0 students at the show. The theater had 10 rows of seats. How many students are in each row?

$$0 \div 10 = s \text{ or } 10 \times s = 0; s = 0; 0 \text{ students}$$

2. There are 9 vases. Each vase has 3 flowers. How many flowers in all are in the vases?

$$9 \times 3 = f; f = 27; 27 \text{ flowers}$$

Find the unknown number for each Fast Array Drawing.



Equations and letters for variables may vary. Samples are given.

Show your work.

Write an equation to solve the problem.

6. The principal buys 20 new games. He divides them evenly among the 4 third grade classes. How many games does each class receive?

$$5 \text{ games; } 20 \div 4 = g; g = 5$$

7. Raj has 4 hooks on his wall. He puts 2 baseball caps on each hook. How many baseball caps does Raj place on the hooks?

$$8 \text{ baseball caps; } 4 \times 2 = b; b = 8$$

8. **Stretch Your Thinking** Cecelia says she can use addition to solve multiplication problems. Is Cecelia correct? Explain.

Yes; Cecelia is correct. She can use repeated addition to solve any multiplication problem.  $4 \times 5 = 20$  can be solved by adding  $4 + 4 + 4 + 4 + 4 = 20$ .

**Homework****Study Plan**

Homework Helper

**Write the first step question and answer. Then solve the problem.**

1. The tour boats at the Laguna can carry 8 passengers. Jacob watched 6 boats float by. One of the boats had 2 empty seats. The others were full. How many passengers were on the 6 boats?

How many passengers can 6 boats carry? 48

46 passengers

2. Jerome bought 8 packs of baseball cards at a garage sale. Each pack had 10 cards. He gave his younger sister 3 cards from each pack. How many cards does Jerome have left?

How many cards did Jerome have left in each pack? 7

56 cards

3. Zoe cut a pan of brownies into 4 rows and 6 columns. She divided them evenly among the 8 people at her scout meeting. How many brownies did each person at her scout meeting get?

How many brownies did Zoe make? 24

3 brownies

4. Four girls helped Mr. Day plant a garden. For their help, he gave the girls \$24 to share equally. Later, Mrs. Day gave each girl \$2 for helping to clean up. How much money did each girl get?

How much did Mr. Day give each girl? \$6

\$8

5. Grace made 7 bouquets for the bridesmaids in a wedding. She put 3 roses, 4 tulips, and 2 lilies in each bouquet. How many flowers did she use in all?

How many flowers were in each bouquet? 9

63 flowers

# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

1. A toy store owner gives 47 balloons to his customers. He has 7 balloons left. How many balloons did he start with?

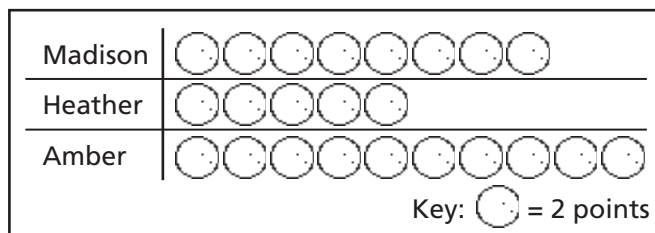
$47 + 7 = b$ ;  $b = 54$ ; 54 balloons

2. There are 7 rows of sunflowers in the garden. There are 9 sunflowers in each row. How many sunflowers are in the garden?

$7 \times 9 = s$ ;  $s = 63$ ; 63 sunflowers

Use the pictograph and key to solve.

The basketball team kept track of how many points some players on the team scored in the last game. This pictograph shows how many points some players scored.



3. How many points did Amber score?

$10 \times 2 = p$ ;  $p = 20$ ; 20 points

4. How many more points did Madison score than Heather?

$3 \times 2 = p$ ;  $p = 6$ ; 6 points

Write an equation and solve the problem.

Letters for variables and equations may vary.

5. Rita has 90 pages in her notebook. She uses 39 pages. How many pages are left in her notebook?

51 pages;  $90 - 39 = 51$

6. Matt earns \$10 for each lawn he mows. How many lawns would he need to mow to earn \$80?

8 lawns;  $\$80 \div \$10 = 8$

7. **Stretch Your Thinking** Write an equation using subtraction and multiplication in which the answer is 36.

Possible equation:  $4 \times 10 - 4 = 36$



**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.****Letters for variables and equations may vary.**

1. Shamariah collects silk roses. She had 17 silk roses in a vase. Six friends each gave her 3 more roses. How many roses does Shamariah have now?  
 $17 + (6 \times 3) = n, n = 35; 35 \text{ roses}$
2. Takala put 9 marbles in the box, Jackie put in 7, and Laird put in 11. Then they divided the marbles evenly among themselves. How many did each person get?  
 $(9 + 7 + 11) \div 3 = 9; 9 \text{ marbles}$
3. A pet store had 9 corn snakes. The snakes laid 8 eggs each. All but 5 of the eggs hatched. How many baby corn snakes does the pet store have?  
 $9 \times 8 - 5 = n, n = 67; 67 \text{ baby corn snakes}$
4. In a paper airplane contest, Amanda's plane flew 19 ft farther than Darren's plane. Darren's plane flew twice as far as Rachel's plane. Rachel's plane flew 20 ft. How far did Amanda's plane fly?  
 $20 \times 2 + 19 = n, n = 59; 59 \text{ ft}$
5. Jenna divided 120 daisies into 2 equal groups. Then she divided each group equally into 10 small bunches. She gave her grandmother one small bunch. How many daisies did Jenna give her grandmother?  
 $120 \div 2 \div 10 = n, n = 6; 6 \text{ daisies}$

## Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

1. Lily has 24 classmates. She gives each classmate 1 pencil. How many pencils in all does she give her classmates?

$24 \times 1 = p$ ;  $p = 24$ ; 24 pencils

2. There are 50 students on a field trip. The tours let 10 students enter at a time. How many tours will be needed for each student to go on a tour?

$50 \div 10 = t$  or  $t \times 10 = 50$ ;  $t = 5$ ; 5 tours

Write a question to finish the word problem.

Then solve the problem.

3. The art teacher has 9 boxes of crayons. There are 8 crayons in each box.

Question: Possible answer: How many crayons does the art teacher have in all?

Solution:  $9 \times 8 = 72$ ; 72 crayons

Write the first step question and answer. Then solve the problem.

4. Mr. Garcia buys 8 packages of juice. There are 6 juice boxes in each package. On the field trip, 40 students drink a juice box. How many juice boxes are left?

How many juice boxes did Mr. Garcia bring? 48; 8 juice boxes

5. **Stretch Your Thinking** Write a two step word problem that uses multiplication and subtraction. Then solve the two step problem.

Possible answer: The store owner receives a shipment of video games. There are 6 boxes in the shipment. Each box has 7 video games. The owner keeps 5 video games for himself. The rest of the video games will be sold in his store. How many video games from the shipment will he sell in his store? 37 video games

**Homework****Study Plan****Homework Helper**

Use a basic multiplication and mental math to complete.

1.  $4 \times 4 = \underline{16}$

2.  $7 \times 3 = \underline{21}$

3.  $6 \times 9 = \underline{54}$

$4 \times 40 = \underline{160}$

$70 \times 3 = \underline{210}$

$6 \times 90 = \underline{540}$

4.  $8 \times 7 = \underline{56}$

5.  $4 \times 9 = \underline{36}$

6.  $2 \times 8 = \underline{16}$

$8 \times 70 = \underline{560}$

$4 \times 90 = \underline{360}$

$20 \times 8 = \underline{160}$

7.  $6 \times 5 = \underline{30}$

8.  $7 \times 7 = \underline{49}$

9.  $5 \times 2 = \underline{10}$

$60 \times 5 = \underline{300}$

$7 \times 70 = \underline{490}$

$50 \times 2 = \underline{100}$

10.  $9 \times 80 = \underline{720}$

11.  $30 \times 5 = \underline{150}$

12.  $6 \times 70 = \underline{420}$

13.  $50 \times 4 = \underline{200}$

14.  $90 \times 3 = \underline{270}$

15.  $8 \times 80 = \underline{640}$

Write an equation and solve the problem.

16. Tom bought 3 packages of cards with 20 cards in each package. How many cards did Tom buy altogether?

$$\underline{3 \times 20 = c; c = 60; 60 \text{ cards}}$$

17. An orchard has 30 rows of apple trees. There are 3 trees in each row. How many apple trees are in the orchard?

$$\underline{30 \times 3 = t; t = 90; 90 \text{ apple trees}}$$

# Remembering

**Write an equation and solve the problem.**

Letters for variables may vary.  
Samples are given.

1. The students from Ms. Conner's class are at a show. They are sitting in 4 rows. There are 9 students in each row. How many students from Ms. Conner's class are at the show?

$$4 \times 9 = s; s = 36; 36 \text{ students}$$

2. Jana's mom bakes 15 muffins for the bake sale. She divides them equally among 3 bags. How many muffins are in each bag?

$$15 \div 3 = m \text{ or } 3 \times m = 15;$$

$$m = 5; 5 \text{ muffins}$$

**Write the first step question and answer. Then solve the problem.**

3. Gabbie buys 8 packages of plates. There are 8 plates in each package. After the picnic, Gabbie has 4 plates left. How many of Gabbie's plates were used at the picnic?

How many plates did Gabbie bring to the picnic? 64; 60 plates

4. Colin ties 5 groups of balloons to the fence. There are 3 orange balloons, 2 blue balloons, and 4 green balloons in each group. How many balloons does Colin use?

How many balloons are in one group? 9; 45 balloons

**Write an equation and solve the problem.**

Letters for variables and equations may vary.

5. Leanne has 50 red and 22 yellow chenille sticks. She needs 8 chenille sticks for each craft. How many crafts can she make?

$$(50 + 22) \div 8 = c, c = 9; 9 \text{ crafts}$$

6. Mr. Driscoll has 9 reports to grade. There are 6 pages for each report. He grades 12 pages. How many pages does he still have to grade?

$$9 \times 6 - 12 = p, p = 42; 42 \text{ pages}$$

7. **Stretch Your Thinking** Write three multiplication equations in which the product will have two zeros. Use 50 as one of the factors.

Possible answer:  $2 \times 50 = 100$ ,  $6 \times 50 = 300$ ,  $8 \times 50 = 400$

**Homework****Study Plan**

Homework Helper

**Write an equation and solve the problem.**

1. Julia used square tiles to make a design. She laid the tiles in a square, 8 tiles wide by 8 tiles long. Each tile has an area of 1 square inch. What is the area of Julia's tile design?

$$8 \times 8 \times 1 = n, n = 64; 64 \text{ sq in.}$$

2. Bart lives 6 blocks from his grandparents. Melinda lives 8 blocks farther from her grandparents as Bart does. How many blocks does Melinda live from her grandparents?

$$6 + 8 = n, n = 14; 14 \text{ blocks}$$

3. Rose rode the roller coaster 9 times. Leila rode the roller coaster 6 less times than Rose. Joseph rode the roller coaster 5 times as many times as Leila. How many times did Joseph ride the roller coaster?

$$(9 - 6) \times 5 = n, n = 15; 15 \text{ times}$$

4. Shondra has 40 roses and 40 lilies. She wants to make 8 bouquets with them, with the same number of each type of flower in each bouquet. How many flowers will be in each bouquet?

$$(40 + 40) \div 8 = n, n = 10; 10 \text{ flowers}$$

5. Willis bought a gallon of paint. He painted a wall that is 9 feet high and 10 feet wide. Then he used the rest of the paint to paint 46 square feet in the hall. How many square feet did the gallon of paint cover?

$$9 \times 10 + 46 = n, n = 136; 136 \text{ sq ft}$$

6. Randall bought 7 computer games at a yard sale. He paid \$4 each for 6 of the games, and \$5 for the other game. How much money did he spend?

$$6 \times 4 + 5 = n, n = 29; \$29$$

# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

1. There are 40 students at the picnic. There are 5 picnic tables. The same number of students is at each table. How many students are at each table?

$$40 \div 5 = s \text{ or } 5 \times s = 40; s = 8;$$

8 students

2. Claire puts \$2 in her coin purse each day for 7 days. How much money is in her coin purse after 7 days?

$$7 \times 2 = m; m = 14; \$14$$

Write an equation and solve the problem.

Letters for variables and equations may vary.

3. There are 4 rows of carrots in the garden. Six carrots are in each row. The farmer picks 3 of the carrots. How many carrots are still in the garden?

$$(4 \times 6) - 3 = c, c = 21; 21 \text{ carrots}$$

4. Darla uses 3 pink roses and 4 yellow tulips to fill each vase. She fills 7 vases. How many flowers does she use?

$$(3 + 4) \times 7 = f, f = 49; 49 \text{ flowers}$$

Use a basic multiplication and mental math to complete.

5.  $6 \times 3 = \underline{18}$

6.  $7 \times 9 = \underline{63}$

7.  $4 \times 2 = \underline{8}$

$60 \times 3 = \underline{180}$

$7 \times 90 = \underline{630}$

$40 \times 2 = \underline{80}$

8.  $8 \times 4 = \underline{32}$

9.  $2 \times 5 = \underline{10}$

10.  $3 \times 4 = \underline{12}$

$80 \times 4 = \underline{320}$

$2 \times 50 = \underline{100}$

$30 \times 4 = \underline{120}$

11.  $5 \times 80 = \underline{400}$

12.  $90 \times 8 = \underline{720}$

13.  $6 \times 70 = \underline{420}$

14. **Stretch Your Thinking** I am a multiple of 10. My factors include an even number and an odd number. I am greater than  $3 \times 5$  and less than  $4 \times 7$ . What number am I?

20

$2 \times 2$

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$2 \cdot 3$

Hint:  
What is  $3 \cdot 2$ ?

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$2 * 4$

Hint:  
What is  $4 * 2$ ?

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$2 \times 5$

Hint:  
What is  $5 \times 2$ ?

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$2 \times 6$

Hint:  
What is  $6 \times 2$ ?

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$2 \cdot 7$

Hint:  
What is  $7 \cdot 2$ ?

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$2 * 8$

Hint:  
What is  $8 * 2$ ?

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$2 \times 9$

Hint:  
What is  $9 \times 2$ ?

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$5 \times 2$

Hint:  
What is  $2 \times 5$ ?

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$5 \cdot 3$

Hint:  
What is  $3 \cdot 5$ ?

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$5 * 4$

Hint:  
What is  $4 * 5$ ?

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$5 \times 5$

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$5 \times 6$

Hint:  
What is  $6 \times 5$ ?

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$5 \cdot 7$

Hint:  
What is  $7 \cdot 5$ ?

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$5 * 8$

Hint:  
What is  $8 * 5$ ?

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$5 \times 9$

Hint:  
What is  $9 \times 5$ ?

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$$2 \overline{)10}$$

Hint: What is  
 $\square \times 2 = 10?$

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$$2 \overline{)8}$$

Hint: What is  
 $\square \times 2 = 8?$

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$$2 \overline{)6}$$

Hint: What is  
 $\square \times 2 = 6?$

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$$2 \overline{)4}$$

Hint: What is  
 $\square \times 2 = 4?$

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$$2 \overline{)18}$$

Hint: What is  
 $\square \times 2 = 18?$

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$$2 \overline{)16}$$

Hint: What is  
 $\square \times 2 = 16?$

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$$2 \overline{)14}$$

Hint: What is  
 $\square \times 2 = 14?$

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$$2 \overline{)12}$$

Hint: What is  
 $\square \times 2 = 12?$

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$$5 \overline{)25}$$

Hint: What is  
 $\square \times 5 = 25?$

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$$5 \overline{)20}$$

Hint: What is  
 $\square \times 5 = 20?$

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$$5 \overline{)15}$$

Hint: What is  
 $\square \times 5 = 15?$

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$$5 \overline{)10}$$

Hint: What is  
 $\square \times 5 = 10?$

© Houghton Mifflin Harcourt Publishing Company

$$5 \overline{)45}$$

Hint: What is  
 $\square \times 5 = 45?$

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$$5 \overline{)40}$$

Hint: What is  
 $\square \times 5 = 40?$

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$$5 \overline{)35}$$

Hint: What is  
 $\square \times 5 = 35?$

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$$5 \overline{)30}$$

Hint: What is  
 $\square \times 5 = 30?$

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$9 \times 2$  Hint: What is $2 \times 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 \cdot 3$  Hint: What is $3 \cdot 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 * 4$  Hint: What is $4 * 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 \times 5$  Hint: What is $5 \times 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>
$9 \times 6$  Hint: What is $6 \times 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 \cdot 7$  Hint: What is $7 \cdot 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 * 8$  Hint: What is $8 * 9$ ? <small>© Houghton Mifflin Harcourt Publishing Company</small>	$9 \times 9$  <small>© Houghton Mifflin Harcourt Publishing Company</small>
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You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.

$$9 \overline{)45}$$

Hint: What is

$$\square \times 9 = 45?$$

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$$9 \overline{)36}$$

Hint: What is

$$\square \times 9 = 36?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)27}$$

Hint: What is

$$\square \times 9 = 27?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)18}$$

Hint: What is

$$\square \times 9 = 18?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)81}$$

Hint: What is

$$\square \times 9 = 81?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)72}$$

Hint: What is

$$\square \times 9 = 72?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)63}$$

Hint: What is

$$\square \times 9 = 63?$$

© Houghton Mifflin Harcourt Publishing Company

$$9 \overline{)54}$$

Hint: What is

$$\square \times 9 = 54?$$

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You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.

$$3 \times 2$$

Hint:  
What is  $2 \times 3$ ?

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$$3 \cdot 3$$

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$$3 * 4$$

Hint:  
What is  $4 * 3$ ?

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$$3 \times 5$$

Hint:  
What is  $5 \times 3$ ?

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$$3 \times 6$$

Hint:  
What is  $6 \times 3$ ?

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$$3 \cdot 7$$

Hint:  
What is  $7 \cdot 3$ ?

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$$3 * 8$$

Hint:  
What is  $8 * 3$ ?

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$$3 \times 9$$

Hint:  
What is  $9 \times 3$ ?

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$$4 \times 2$$

Hint:  
What is  $2 \times 4$ ?

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$$4 \cdot 3$$

Hint:  
What is  $3 \cdot 4$ ?

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What is  $8 * 4$ ?

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$$4 \times 9$$

Hint:  
What is  $9 \times 4$ ?

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$$3 \overline{)15}$$

Hint: What is  
 $\square \times 3 = 15$ ?

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$$3 \overline{)12}$$

Hint: What is  
 $\square \times 3 = 12$ ?

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$$3 \overline{)9}$$

Hint: What is  
 $\square \times 3 = 9$ ?

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$$3 \overline{)6}$$

Hint: What is  
 $\square \times 3 = 6$ ?

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$$3 \overline{)27}$$

Hint: What is  
 $\square \times 3 = 27$ ?

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$$3 \overline{)24}$$

Hint: What is  
 $\square \times 3 = 24$ ?

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$$3 \overline{)21}$$

Hint: What is  
 $\square \times 3 = 21$ ?

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$$3 \overline{)18}$$

Hint: What is  
 $\square \times 3 = 18$ ?

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$$4 \overline{)20}$$

Hint: What is  
 $\square \times 4 = 20$ ?

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$$4 \overline{)16}$$

Hint: What is  
 $\square \times 4 = 16$ ?

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$$4 \overline{)12}$$

Hint: What is  
 $\square \times 4 = 12$ ?

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$$4 \overline{)8}$$

Hint: What is  
 $\square \times 4 = 8$ ?

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$$4 \overline{)36}$$

Hint: What is  
 $\square \times 4 = 36$ ?

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$$4 \overline{)32}$$

Hint: What is  
 $\square \times 4 = 32$ ?

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$$4 \overline{)28}$$

Hint: What is  
 $\square \times 4 = 28$ ?

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$$4 \overline{)24}$$

Hint: What is  
 $\square \times 4 = 24$ ?

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$$6 \times 2$$

Hint:  
What is  $2 \times 6$ ?

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$$6 \cdot 3$$

Hint:  
What is  $3 \cdot 6$ ?

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$$6 * 4$$

Hint:  
What is  $4 * 6$ ?

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$$6 \times 5$$

Hint:  
What is  $5 \times 6$ ?

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$$6 \times 6$$

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$$6 \cdot 7$$

Hint:  
What is  $7 \cdot 6$ ?

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$$6 * 8$$

Hint:  
What is  $8 * 6$ ?

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$$6 \times 9$$

Hint:  
What is  $9 \times 6$ ?

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$$7 \times 2$$

Hint:  
What is  $2 \times 7$ ?

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$$7 \cdot 3$$

Hint:  
What is  $3 \cdot 7$ ?

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$$7 * 4$$

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What is  $4 * 7$ ?

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What is  $5 \times 7$ ?

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Hint:  
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$$7 \cdot 7$$

© Houghton Mifflin Harcourt Publishing Company

$$7 * 8$$

Hint:  
What is  $8 * 7$ ?

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$$7 \times 9$$

Hint:  
What is  $9 \times 7$ ?

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$$6 \overline{)30}$$

Hint: What is  
 $\square \times 6 = 30$ ?

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$$6 \overline{)24}$$

Hint: What is  
 $\square \times 6 = 24$ ?

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$$6 \overline{)18}$$

Hint: What is  
 $\square \times 6 = 18$ ?

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$$6 \overline{)12}$$

Hint: What is  
 $\square \times 6 = 12$ ?

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$$6 \overline{)54}$$

Hint: What is  
 $\square \times 6 = 54$ ?

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$$6 \overline{)48}$$

Hint: What is  
 $\square \times 6 = 48$ ?

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$$6 \overline{)42}$$

Hint: What is  
 $\square \times 6 = 42$ ?

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$$6 \overline{)36}$$

Hint: What is  
 $\square \times 6 = 36$ ?

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$$7 \overline{)35}$$

Hint: What is  
 $\square \times 7 = 35$ ?

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$$7 \overline{)28}$$

Hint: What is  
 $\square \times 7 = 28$ ?

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$$7 \overline{)21}$$

Hint: What is  
 $\square \times 7 = 21$ ?

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$$7 \overline{)14}$$

Hint: What is  
 $\square \times 7 = 14$ ?

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$$7 \overline{)63}$$

Hint: What is  
 $\square \times 7 = 63$ ?

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$$7 \overline{)56}$$

Hint: What is  
 $\square \times 7 = 56$ ?

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$$7 \overline{)49}$$

Hint: What is  
 $\square \times 7 = 49$ ?

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$$7 \overline{)42}$$

Hint: What is  
 $\square \times 7 = 42$ ?

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$8 \times 2$

Hint:  
What is  $2 \times 8$ ?

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$8 \cdot 3$

Hint:  
What is  $3 \cdot 8$ ?

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$8 * 4$

Hint:  
What is  $4 * 8$ ?

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$8 \times 5$

Hint:  
What is  $5 \times 8$ ?

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$8 \times 6$

Hint:  
What is  $6 \times 8$ ?

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$8 \cdot 7$

Hint:  
What is  $7 \cdot 8$ ?

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$8 * 8$

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$8 \times 9$

Hint:  
What is  $9 \times 8$ ?

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You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.

$$8 \overline{)40}$$

Hint: What is  
 $\square \times 8 = 40$ ?

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$$8 \overline{)32}$$

Hint: What is  
 $\square \times 8 = 32$ ?

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$$8 \overline{)24}$$

Hint: What is  
 $\square \times 8 = 24$ ?

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$$8 \overline{)16}$$

Hint: What is  
 $\square \times 8 = 16$ ?

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$$8 \overline{)72}$$

Hint: What is  
 $\square \times 8 = 72$ ?

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$$8 \overline{)64}$$

Hint: What is  
 $\square \times 8 = 64$ ?

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$$8 \overline{)56}$$

Hint: What is  
 $\square \times 8 = 56$ ?

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$$8 \overline{)48}$$

Hint: What is  
 $\square \times 8 = 48$ ?

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You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.



**Homework****Study Plan**\_\_\_\_\_  
Homework Helper**Complete.**

1.  $6 \times 3 = \underline{18}$

2.  $7 \times 9 = \underline{63}$

3.  $4 \times 0 = \underline{0}$

4.  $30 \div 5 = \underline{6}$

5.  $18 \div 2 = \underline{9}$

6.  $70 \div 7 = \underline{10}$

7.  $36 \div \underline{4} = 9$

8.  $3 \times \underline{8} = 24$

9.  $\underline{0} \div 8 = 0$

10.  $\underline{5} \times 7 = 35$

11.  $60 = \underline{10} \times 6$

12.  $4 = 28 \div \underline{7}$

13.  $72 = 8 \times \underline{9}$

14.  $2 = \underline{20} \div 10$

15.  $\underline{5} = 45 \div 9$

16.  $21 = \underline{3} \times 7$

17.  $8 = 64 \div \underline{8}$

18.  $\underline{0} \times 374 = 0$

**Solve.**

19. Using only whole numbers, Nikki wrote as many multiplication equations as she could with 12 as the product. What were her equations?

$$\underline{3 \times 4 = 12; 4 \times 3 = 12; 2 \times 6 = 12, 6 \times 2 = 12;}$$

$$\underline{1 \times 12 = 12; 12 \times 1 = 12}$$

20. Pablo wrote four division equations with 6 as the quotient. What could have been the four division equations that he wrote?

$$\underline{\text{Possible answer: } 6 \div 1 = 6; 12 \div 2 = 6, 18 \div 3 = 6;}$$

$$\underline{36 \div 6 = 6}$$

# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

1. Stephen has a stamp collection of 72 stamps. He puts 9 stamps on each page in his album. How many pages does he fill?

$$72 \div 9 = p \text{ or } p \times 9 = 72; p = 8;$$

8 pages

2. There are 6 birdcages at the zoo. Two birds are in each birdcage. How many birds are in the birdcages?

$$6 \times 2 = b; b = 12; 12 \text{ birds}$$

Use a basic multiplication and mental math to complete.

3.  $2 \times 8 = \underline{16}$

4.  $5 \times 9 = \underline{45}$

5.  $3 \times 7 = \underline{21}$

$20 \times 8 = \underline{160}$

$5 \times 90 = \underline{450}$

$30 \times 7 = \underline{210}$

6.  $6 \times 4 = \underline{24}$

7.  $9 \times 4 = \underline{36}$

8.  $5 \times 5 = \underline{25}$

$60 \times 4 = \underline{240}$

$9 \times 40 = \underline{360}$

$50 \times 5 = \underline{250}$

9.  $7 \times 80 = \underline{560}$

10.  $70 \times 7 = \underline{490}$

11.  $6 \times 60 = \underline{360}$

Write an equation and solve the problem.

12. Max has \$12 for the field trip. Sue has \$4 less than Max. Ellen has \$2 more than Sue. How much money does Ellen have for the field trip?

$$12 - 4 + 2 = m, m = 10; \$10$$

13. Jeremiah mows 8 lawns. Andy mows 4 fewer lawns than Jeremiah. Sally mows double the number Andy mows. How many lawns does Sally mow?

$$(8 - 4) \times 2 = l, l = 8; 8 \text{ lawns}$$

14. **Stretch Your Thinking** Write three multiplication equations in which the product is 24. Then draw an array for one of your equations.

Possible answer:  $4 \times 6 = 24,$

$3 \times 8 = 24, 1 \times 24 = 24$

Drawings will vary but should show 24.

**Homework**

A zoo kitchen's weekly grocery list shows the zoo orders 56 pounds of bananas each week. The zoo kitchen uses the same number of pounds of bananas each day.

- Complete the chart showing the number of pounds of bananas the zoo kitchen has used after each day of the week.

Number of Days	1	2	3	4	5	6	7
Number of Pounds of Bananas	8	16	24	32	40	48	56

- Write an equation to show how to find the number of pounds of bananas the zoo uses in one day.

$$56 \div 7 = n, n = 8; 8 \text{ pounds}$$

**Write an equation and solve the problem.**

- The zoo uses 10 pounds of apples each day. How many pounds of apples should be on the weekly grocery list?

$$10 \times 7 = n, n = 70; 70 \text{ pounds}$$

- After 6 days, how many pounds of apples does the zoo use?

$$6 \times 10 = n, n = 60; 60 \text{ pounds}$$

- After 6 days, how many more pounds of apples than bananas does the zoo use?

$$60 - 48 = n, n = 12; 12 \text{ pounds}$$

- How many pounds of bananas and apples altogether does the zoo use each week?

$$70 + 56 = n, n = 126; 126 \text{ pounds}$$

# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

1. Tami uses square tiles to make an array. She places 5 tiles in each row. She makes 5 rows. How many square tiles does she use?

$$5 \times 5 = t; t = 25; 25 \text{ tiles}$$

2. Mrs. Gibbs sets up 36 chairs for parents to watch the class performance. She makes 4 rows. How many chairs are in each row?

$$36 \div 4 = c \text{ or } 4 \times c = 36; c = 9; 9 \text{ chairs}$$

Write an equation and solve the problem.

3. There are 163 adults and 37 students in the audience. Will 4 packages of 50 programs be enough for each person in the audience to receive a program? Explain.

$$\text{yes; } 163 + 37 = 200, 4 \times 50 =$$

$$200, 200 = 200$$

4. There were 8 rows of picture frames at the store. There are 7 picture frames in each row. Twelve picture frames are sold. How many picture frames are left at the store?

$$(8 \times 7) - 12 = p, p = 44;$$

$$44 \text{ picture frames}$$

Complete.

5.  $40 \div 10 = \underline{4}$

6.  $\underline{24} = 8 \times 3$

7.  $\underline{7} \times 4 = 28$

8.  $2 \times 4 = \underline{8}$

9.  $\underline{64} = 8 \times 8$

10.  $\underline{9} = 81 \div 9$

11.  $9 \times 5 = \underline{45}$

12.  $42 \div \underline{7} = 6$

13.  $9 \times \underline{7} = 63$

14. **Stretch Your Thinking** Matt runs four days a week.

On the first day he runs 30 minutes. On the second day he runs 5 minutes more than on the first day. On the third day he runs the same number of minutes as the second day. On the fourth day he runs 10 minutes more than the previous day. After Matt runs on the fourth day, how many minutes in all has he run?

$$\underline{145 \text{ minutes}}$$

**Homework**

Estimate the length of the line segment in inches.  
Then measure it to the nearest inch.

1.



Estimate: Answers will vary. Actual: 3 inches



Estimate the length of the line segment in inches. Then  
measure it to the nearest  $\frac{1}{2}$  inch.

2.



Estimate: Answers will vary. Actual:  $2\frac{1}{2}$  inches

Estimate the length of each line segment in inches.  
Then measure it to the nearest  $\frac{1}{4}$  inch.

3.



Estimate: Answers will vary. Actual:  $1\frac{1}{4}$  inch

4.



Estimate: Answers will vary. Actual: 5 inches

Draw a line segment that has the given length. **Check students' work.**

5. 4 inches

6.  $3\frac{1}{4}$  inches7.  $4\frac{1}{2}$  inches8.  $\frac{3}{4}$  inch

9. Marta wants to make 4 necklaces that are the same length. She asks her friends to cut the string for the necklaces 15 paper clips long. Would all the lengths be the same? Explain your thinking.

No; The lengths won't all be the same because paper clips can be different sizes.

## Remembering

Solve each equation.

1.  $4 \times 5 =$  20

2.  $10 * 5 =$  50

3.  $3 \bullet 5 =$  15

4.  $2 * 5 =$  10

5.  $1 \bullet 5 =$  5

6.  $5 \times 9 =$  45

7.  $5 \bullet 7 =$  35

8.  $5 * 5 =$  25

9.  $5 \times 6 =$  30

Solve each problem.

10. Tommy buys 6 notebooks. They cost \$3 each. How much does he spend?

\$18

11. Olivia has 42 muffins. She puts the same number of muffins into each of 6 baskets. How many muffins does Olivia put in each basket?

7 muffins

Solve each problem. Label your answers with the correct units.

12. Ms. Emerson has a rectangular shelf that is 5 feet long and 3 feet wide. What is the area of the shelf?

15 square feet

13. Trevor has a rectangular treasure box with an area of 72 square centimeters. If the length of one side is 9 centimeters, what is the length of the adjacent side?

8 centimeters

14. **Stretch Your Thinking** Grace has a piece of string that is 8 inches long. She needs to cut the string into four equal pieces, but she does not have a ruler. Explain a way Grace can cut the string into four equal pieces.

Possible answer: She can fold the string in half to get two 4-inch pieces.

Then she can fold it in half again to get four 2-inch pieces, and cut.

**Homework**

Choose the best unit to measure how much each item can hold. Write *cup*, *pint*, *quart*, or *gallon*.

1. a bathtub \_\_\_\_\_ **gallon**
2. a container of orange juice \_\_\_\_\_ **quart**
3. a juice box \_\_\_\_\_ **cup**
4. a small milk carton \_\_\_\_\_ **pint**

Use drawings to represent the problems.

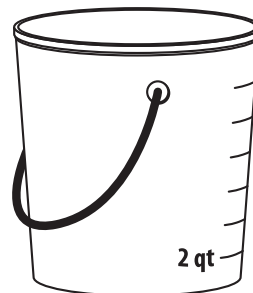
5. Molly bought a container of lemonade that had 6 cups. She drank 2 cups. How many cups of lemonade does she have left?

**4 cups**



6. Randy poured 8 quarts of water in a bucket. Then he added 4 more quarts. How many quarts of water are in the bucket?

**12 quarts**



Solve. Use drawings if you need to.

7. Mrs. Sanders buys 2 gallons of milk each week. How many gallons of milk will she buy in 10 weeks?

**20 gallons of milk**

8. Brianna bought 64 fluid ounces of her favorite drink. How many 8 fluid-ounce glasses can she fill with the drink?

**8 glasses**

9. Brian's aquarium holds 16 gallons of water. He uses 2-gallon containers of water to fill the aquarium. How many containers does he use?

**8 containers**

10. The Corner Market sold 24 pints of milk on Monday and 18 pints on Tuesday. How many pints of milk did the market sell on those two days?

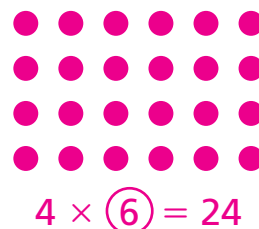
**42 pints**

# Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer.

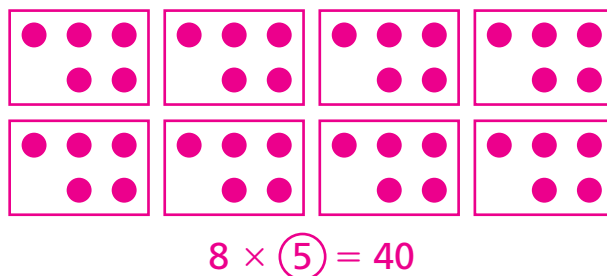
1. Coach Stevens puts 6 cones in each row for physical education class. He makes 4 rows. How many cones does Coach Stevens use?

24 cones

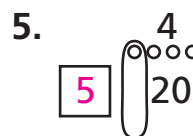
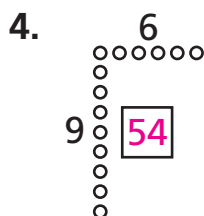
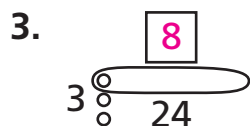


2. Emily puts stickers in 8 bags, with 5 stickers per bag. How many stickers does Emily use?

40 stickers



Find the unknown number for each Fast Array drawing.



Estimate the length of the line segment in inches. Then measure it to the nearest  $\frac{1}{2}$  inch.



Estimate: Answers will vary. Actual:  $3\frac{1}{2}$  inches

8. **Stretch Your Thinking** Write a word problem in which the answer is 6 gallons.

Possible answer: Ty is painting tables to sell in his store. Each table uses 1 gallon of paint. He has 6 tables to paint. How many gallons of paint will Ty use to paint the tables?



**Homework**

1 liter (L) = 1,000 milliliters (mL)
--------------------------------------

Circle the better estimate.

- |   |  |
|---|--|
| 1. a container of milk <u>2 L</u> 20 mL | 2. a cup of punch 25 L <u>250 mL</u>   |
| 3. an eyedropper 1 L or <u>1 mL</u>     | 4. a jar of pickles 50 L <u>500 mL</u> |

Choose the unit you would use to measure the liquid volume of each. Write *mL* or *L*.

- |                                  |                         |
|----------------------------------|-------------------------|
| 5. a container of glue <u>mL</u> | 6. an aquarium <u>L</u> |
|----------------------------------|-------------------------|

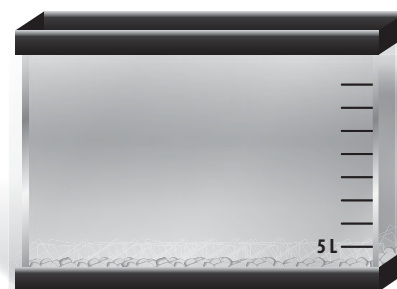
Use the drawing to represent and solve the problem.

7. Dinah had a bottle of water that contained 800 milliliters of water. She used 500 milliliters. How much water is left in the bottle?

300 milliliters

8. Galen has a fish tank that holds 40 liters of water. He poured 15 liters of water into the tank. How many more liters does he need to add to fill the tank?

25 liters



**Solve.**

- |   |   |
|---|---|
| 9. Ben has 4 hummingbird feeders. Each feeder holds 80 milliliters of liquid hummingbird food. How many milliliters of liquid hummingbird food does Ben need? | 10. Drew needs 27 liters of punch for a party. It comes in 3 liter containers. How many containers should Drew buy? |
|---|---|

320 milliliters

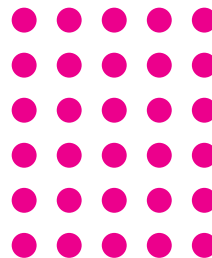
9 containers

# Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer to the problem.

1. Kelly's garden has 6 rows of tulips. There are 5 tulips in each row. How many tulips are in her garden?

30 tulips



$$6 \times 5 = 30$$

Solve. Then circle what type it is and what operation you used.

2. The area of the rectangular table is 18 square feet. The width of the table is 3 feet. What is its length?

6 feet

3. The band lines up in 8 rows, with 6 band members in each row. How many band members are there in all?

48 band members

array

equal groups

area

array

equal groups

area

multiplication

division

multiplication

division

Use the drawing to represent the problem.

4. Elizabeth buys a container of orange juice that has 8 cups. She pours 6 cups into a pitcher. How many cups are left in the container?

2 cups



5. **Stretch Your Thinking** Write a word problem that involves subtracting 4 liters. Then solve. **Check students' drawings.**

Draw a picture to represent your answer.

Possible answer: Brittany has 10 liters of water

in a bucket. She uses 4 liters to water her plants.

How many liters are left in the bucket? 6 liters

**Homework**

Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.

1.



ounce

2.



ounce

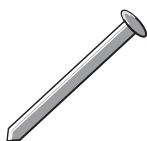
3.



pound

Choose the unit you would use to measure the mass of each object. Write *gram* or *kilogram*.

4.



gram

5.



kilogram

6.



gram

Circle the better estimate.

7. a pillow

8 oz

8 lb

8. a stapler

250 g

250 kg

9. a car

1,000 g

1,000 kg

10. a large book

3 lb

30 lb

Solve. Use a drawing if you need to.

11. Steve bought 24 ounces of his favorite cereal. He put equal amounts of the cereal in 4 containers. How many ounces did he put in each container?

6 ounces

12. Beth bought a bag filled with 340 grams of pasta. She used 250 grams. How many grams are left in the bag?

90 grams

13. There are 8 books in a box. Each book has a mass of 2 kilograms. What is the total mass of the books?

16 kilograms

14. Roy bought a 25-pound bag and a 10-pound bag of pet food. How many pounds of pet food did he buy?

35 pounds

## Remembering

Write an equation and solve the problem.

1. The shoe store has a stack of 9 shoeboxes.  
Two shoes are in each box. How many shoes  
are in the stack?

18 shoes,  $9 \times 2 = \square$ ,  $\square = 18$

2. Mrs. Rak's class has 35 students. Seven students  
sit at each table. How many tables of students  
are there?

5 tables,  $35 \div 7 = \square$  or  $\square \times 7 = 35$ ,  $\square = 5$

Multiply or divide to find the unknown numbers.

3.  $50 \div 10 = \square$

4.  $2 \times \square = 14$

5.  $6 \overline{)54} = \square$

6.  $6 \cdot 4 = \square$

7.  $\frac{49}{7} = \square$

8.  $\square \times 4 = 20$

Use drawings to represent the problems.

9. Meagan has a container that has 700 milliliters  
of milk. She uses 300 milliliters for a recipe.  
How much milk is left in the container?

400 milliliters



10. Austin puts 5 liters of water in an empty bucket.  
Miles puts in another 8 liters. How much water  
is in the bucket now?

13 liters



11. **Stretch Your Thinking** Explain how you know  
whether to choose grams or kilograms when  
measuring mass. Name an object you would  
measure using each unit.

Answers will vary. Possible answer: gram-sticker,  
kilogram-a puppy

**Homework****Solve. Use drawings if you need to.***Show Your Work*

1. Carlie had 800 milliliters of water in a container. She poured all but 300 milliliters into a vase. How many milliliters of water did Carlie pour into the vase?

500 milliliters

2. Benji bought 2 potatoes that together have a mass of 496 grams. If one potato has a mass of 254 grams, what is the mass of the other potato?

242 grams

3. An average sized duck egg has a mass of 80 grams. What would be the mass of three duck eggs?

240 grams

4. Michelle has 4 buckets she uses to water plants. She filled each bucket with 6 liters of water. What is the total liquid volume of all the buckets?

24 liters

5. A stack of books has a mass of 21 kilograms. If each book in the stack has a mass of 3 kilograms, how many books are in the stack?

7 books

6. Martha bought a liter of lemonade. She gave each of her 3 friends 300 milliliters. Did Martha use the whole liter of lemonade? Explain.

No;  $300 + 300 + 300 = 900$  and 900 milliliters is less than 1,000 milliliters or 1 liter.

# Remembering

Multiply or divide to find the unknown numbers.

1.  $\frac{40}{8} = \boxed{5}$

2.  $5 * \boxed{10} = 50$

3.  $2 \overline{)10} = \boxed{5}$

4.  $6 \bullet 10 = \boxed{60}$

5.  $90 \div 10 = \boxed{9}$

6.  $\boxed{5} \times 4 = 20$

Solve.

7. The valet parked 5 rows of cars in the parking lot. He put 5 cars in each row. How many cars did he park?

25 cars

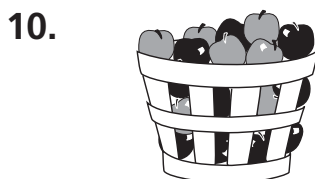
8. Charlie is making a mosaic picture using 1-centimeter square tiles. He places them in a square, 8 tiles wide by 8 tiles long. What is the area of the mosaic picture?

64 square centimeters

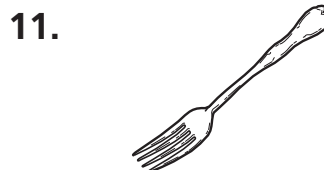
Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.



ounce



pound



ounce

12. **Stretch Your Thinking** Jake has 12 liters of water. Name four different ways he can divide the water into buckets so each bucket has the same number of liters.

Possible answers: 2 buckets with 6 liters, 4 buckets with 3 liters,  
12 buckets with 1 liter, 3 buckets with 4 liters

**Homework**

Write the time on the digital clock. Then write how to say the time.

Answers may vary.

1.



3:15

three fifteen

2.



7:30

seven thirty

3.



4:45

quarter to five

4.



11:00

eleven o'clock

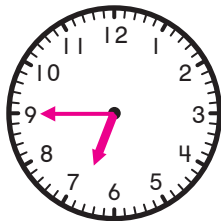
Draw the hands on the analog clock. Write the time on the digital clock.

5. twenty-eight  
minutes after four



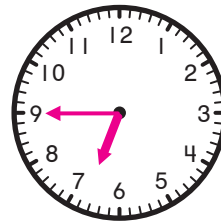
4:28

6. six forty-five



6:45

7. quarter to seven



6:45

Write the time on the digital clock. Then write how to say the time.

Word forms may vary.

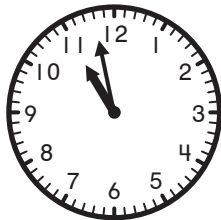
8.



2:37

two thirty-seven

9.



10:58

fifty-eight  
minutes after ten

10.



8:45

quarter to nine

# Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

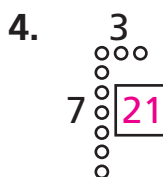
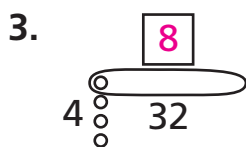
1. The pet store has 7 aquariums. There are 9 fish in each aquarium. How many fish in all are in the aquariums?

$$7 \times 9 = f, f = 63, 63 \text{ fish}$$

2. Declan has 81 dollar bills. He puts them in piles of 9. How many piles does he make?

$$81 \div 9 = p \text{ or } p \times 9 = 81, p = 9, 9 \text{ piles}$$

Find the unknown number for each Fast Array drawing.



Solve.

6. LaDonna buys 2 grapefruits that together have a mass of 479 grams. If one grapefruit has a mass of 245 grams, what is the mass of the other grapefruit?

$$234 \text{ grams}$$

7. Harper fills 3 pots each with 4 liters of water. How many liters of water does he pour into the pots?

$$12 \text{ liters}$$

8. **Stretch Your Thinking** I am an hour that happens two times a day. My hands point in opposite directions. Both my hands point to a number on the clock. What hour am I?

$$6:00$$



**Homework**

Write the times as minutes *after* an hour and minutes *before* an hour.

1.



34 minutes after 7

26 minutes before 8

2.



45 minutes after 3

15 minutes before 4

3.



53 minutes after 2

7 minutes before 3

4.



12 minutes after 12

48 minutes before 1

5.



27 minutes after 1

33 minutes before 2

6.



8 minutes after 4

52 minutes before 5

7.



22 minutes after 5

38 minutes before 6

8.



17 minutes after 9

43 minutes before 10

9.



41 minutes after 6

19 minutes before 7

# Remembering

Multiply or divide to find the unknown numbers.

1.  $\frac{36}{9} = \boxed{4}$

2.  $40 \div 5 = \boxed{8}$

3.  $2 \cdot 7 = \boxed{14}$

4.  $7 \times 5 = \boxed{35}$

5.  $10 \overline{)90} = \boxed{9}$

6.  $10 * 8 = \boxed{80}$

Write an equation to solve the problem.

Equations and letters for variables may vary. Samples are given.

7. Antonio is planting bean seeds. He puts 6 seeds in each row. There are 5 rows. How many bean seeds does he plant?

$5 \times 6 = s$ ,  $s = 30$ ; 30 bean seeds

8. The baker made 56 fresh baked muffins. There are 8 muffins in each tin. How many tins did he use?

$56 \div 8 = t$ , or  $t \times 8 = 56$ ,  $t = 7$ ; 7 tins

Write the time on the digital clock. Then write how to say the time. Answers may vary.

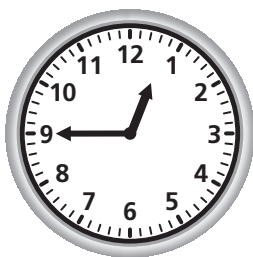
9.



**6:30**

six thirty

10.



**12:45**

quarter to one

11.



**10:15**

ten fifteen

12.



**8:00**

8 o'clock

13. **Stretch Your Thinking** List five different times in which the minutes before are the same as the minutes after the hour.

Possible answers: 1:30, 3:30, 4:30, 10:30, 12:30

**Homework****Complete.****1. Complete the table.**

Start Time	Elapsed Time	End Time
2:00 P.M.	8 hours	10:00 P.M.
2:27 A.M.	2 hours and 18 minutes	4:45 A.M.
3:30 A.M.	1 hour and 22 minutes	4:52 A.M.
2:10 P.M.	3 hours and 16 minutes	5:26 P.M.
8:50 A.M.	2 hours and ten minutes	11:00 A.M.
3:14 P.M.	4 hours and 39 minutes	7:53 P.M.

**Solve. Use your clock if you need to.**

2. Liza left the library at 11:30 A.M. on Saturday.  
She had been there for 1 hour and 25 minutes.  
What time did she get to the library?

10:05 A.M.

3. Andres spent from 4:15 P.M. to 5:05 P.M. doing  
chores. How much time did Andres spend  
doing his chores?

50 minutes

4. Arjun arrived at baseball practice at 5:15 P.M.  
He practiced for 1 hour and 30 minutes.  
What time did baseball practice end?

6:45 P.M.

5. Today Sarah's piano lessons started at 4:15 P.M.  
She was finished with her lessons at 5:10 P.M.  
How long was Sarah at piano lessons?

55 minutes

# Remembering

Multiply or divide to find the unknown numbers.

1.  $\frac{30}{3} = \boxed{10}$

2.  $27 \div 9 = \boxed{3}$

3.  $2 \cdot 3 = \boxed{6}$

4.  $7 \times 9 = \boxed{63}$

5.  $5 \overline{)20} = \boxed{4}$

6.  $4 * 3 = \boxed{12}$

Write an equation and solve the problem.

Letters for variables and equations may vary.

7. There are 36 students at the show. They sit in 4 equal rows. How many seats are in each row?

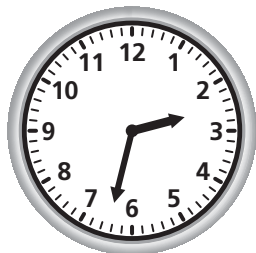
9 seats;  $36 \div 4 = s$ ,  $s = 9$

8. The music teacher set up 67 chairs for the concert. The principal set up 35 chairs for the concert. How many chairs in all did they set up?

102 chairs;  $67 + 35 = c$ ,  $c = 102$

Write the times as minutes *after* an hour and minutes *before* an hour.

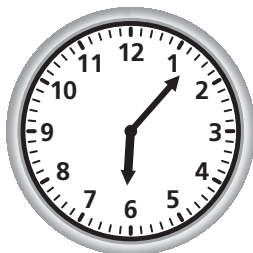
9.



32 minutes after 2

28 minutes before 3

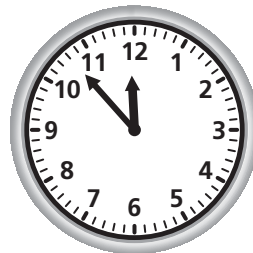
10.



7 minutes after 6

53 minutes before 7

11.



53 minutes after 11

7 minutes before 12

12. **Stretch Your Thinking** Write a word problem where something starts at 8:25 A.M. and ends at 1:43 P.M.

Possible answer: Layla leaves for school at

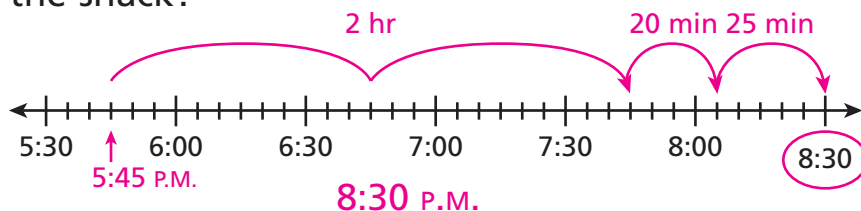
8:25 A.M. School starts at 9:00 A.M. Art class is at

1:43 P.M. How much time has elapsed from when school starts to when art class starts?

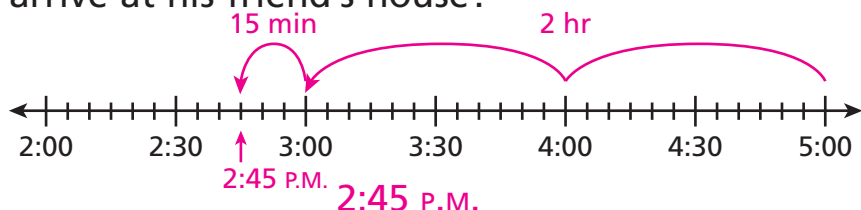
**Homework**

Solve using a number line.

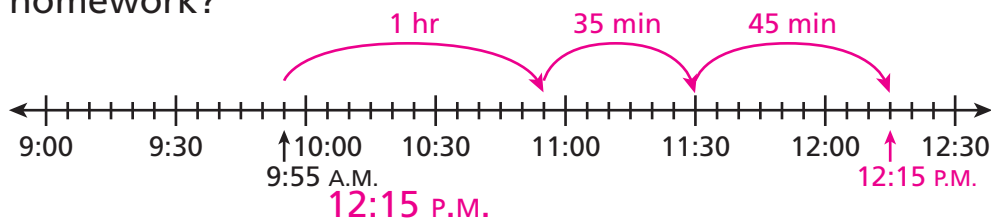
1. Terry began watching a movie at 5:45 P.M. The movie lasted 2 hours 20 minutes. Then Terry spent 25 minutes eating a snack. What time did Terry finish eating the snack?



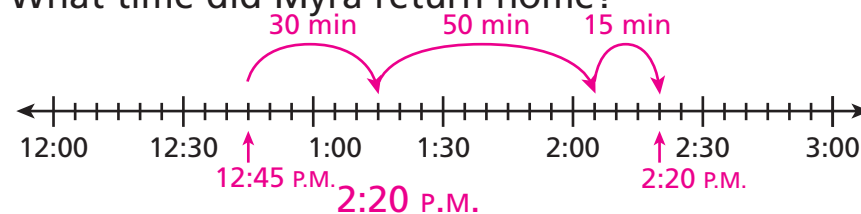
2. Evan left his friend's house at 5:00 P.M. He had been there 2 hours 15 minutes. At what time did Evan arrive at his friend's house?



3. Haley began reading her book at 9:55 A.M. She read for 1 hour 35 minutes. Then she spent 45 minutes doing homework. What time did Haley finish her homework?



4. Myra left home at 12:45 P.M. She spent 30 minutes eating lunch and 50 minutes watching a parade. Then it took her 15 minutes to drive home. What time did Myra return home?

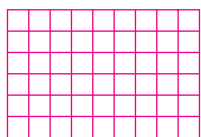


# Remembering

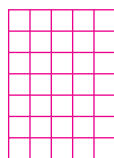
Make a rectangle drawing to represent each exercise.

Then find the product.

1.  $6 \times 9 = \underline{54}$



2.  $7 * 5 = \underline{35}$



3.  $3 \bullet 6 = \underline{18}$



Write the first step question and answer.

Then solve the problem.

4. The baker makes 54 biscuits in the morning.

Then he makes 26 more in the afternoon.

He puts 10 biscuits in each bag. How many bags does he fill?

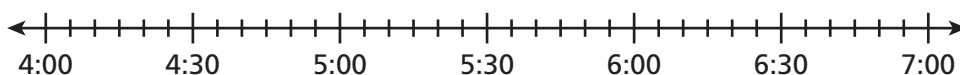
How many biscuits did the baker make? 80 biscuits

$(54 + 26) \div 10 = 8$ ; 8 bags

5. Complete the table.

Start Time	Elapsed Time	End Time
9:32 A.M.	1 hour 23 minutes	10:55 A.M.
1:19 P.M.	4 hours 18 minutes	5:37 P.M.
4:46 P.M.	2 hours 45 minutes	7:31 P.M.

6. **Stretch Your Thinking** Write a two step time word problem using the number line in which the start time is 4:50. Use the number line below to show how to solve. Problems will vary.



Possible answer: Alexis finishes her math and science homework at 6:45. Her math homework takes her 1 hour 5 minutes. Her science takes 50 minutes. What time does Alexis start her homework?

**Homework**

**Solve. Use a clock or sketch a number line diagram if you need to.**

1. Rhea arrived at the mall at 3:45 P.M. She spent 45 minutes having lunch and then she shopped for 55 minutes before leaving the mall. How much time did Rhea spend at the mall?

1 hour 40 minutes

2. Mrs. Cox is baking a ham for dinner. It takes 1 hour 30 minutes to bake. The family eats at 6:15 P.M. What time should Mrs. Cox put the ham in the oven?

4:45 P.M.

3. Dina started chores at 8:15 A.M. and finished at 9:05 A.M. It took her 30 minutes to clean her room and she spent the rest of the time bathing her dog. How long did Dina spend bathing her dog?

20 minutes

4. Jerry finished skating at 7:00 P.M. He skated for 1 hour 45 minutes. What time did he start skating?

5:15 P.M.

5. Jason started his project at 2:30 P.M. and finished 2 hours and 15 minutes later. He spent 25 minutes doing research, 30 minutes writing a report, and the rest of the time building a model. What time did he finish his project? How much time did he spend building the model?

4:45 P.M.; 1 hour 20 minutes

# Remembering

Solve each problem.

Show Your Work

1. The farmer makes stacks of 4 bales of hay. He makes 6 stacks. How many bales of hay does he stack?

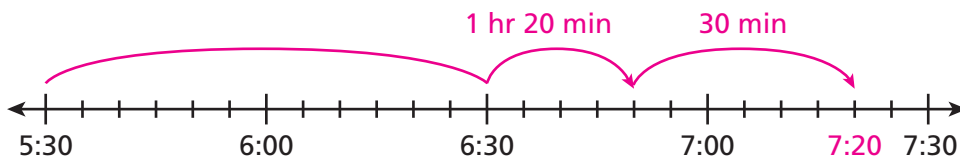
24 bales of hay

2. Lilly has 85 shells in her collection. She gives 13 shells to her best friend. She puts the rest of her shells in groups of 9. How many groups does she make?

8 groups

Solve.

3. William and Hannah went to the bowling alley at 5:30 P.M. They bowled for 1 hour 20 minutes. Then they played a video game for 30 minutes. After the video game, they leave to go home. What time did they leave?



7:20 P.M.

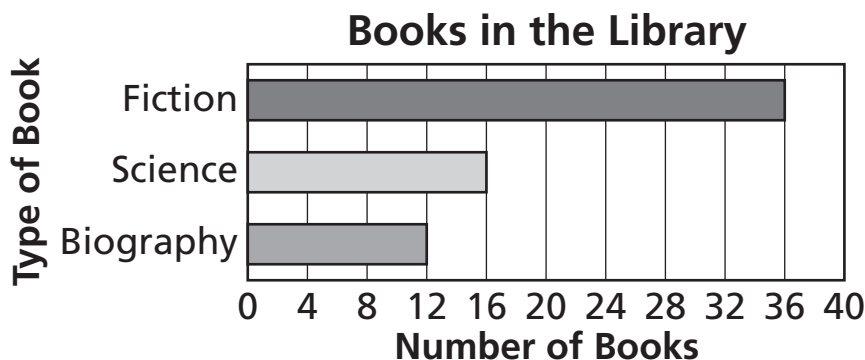
4. **Stretch Your Thinking** Tony is cooking dinner. He starts cooking at different times, so all the foods will be ready at the same time. The chicken takes 25 minutes to cook, the rice takes 40 minutes to cook, and the green beans take 15 minutes to cook. All the foods are finished at 5:33 P.M. At what time did he start cooking each food?

He starts cooking the chicken at 5:08 P.M., the rice at 4:53 P.M., and the green beans at 5:18 P.M.



**Homework**

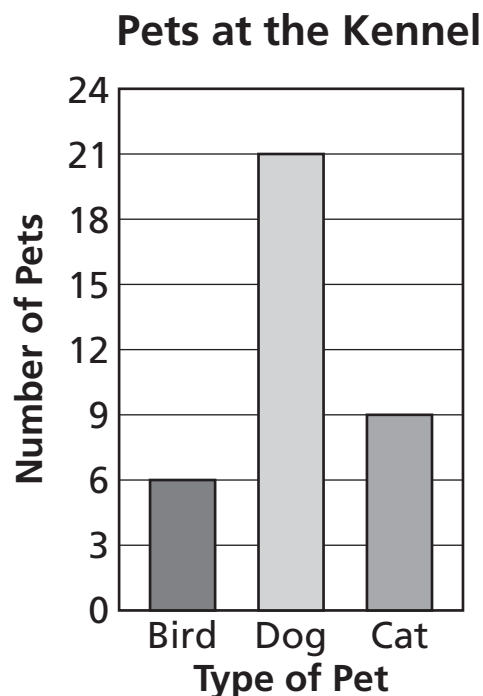
Use the horizontal bar graph to answer each question.



- How many fiction books are in the library? 36 fiction books
- How many more science books are there than biographies? 4 more science books
- Write two of your own questions that can be answered using the graph. Answers will vary.  
Possible answers: How many books in all are in the library?  
How many more fiction books are there than biographies?

Use the vertical bar graph to answer each question.

- How many cats and dogs are at the kennel? 30 cats and dogs
- The kennel has the fewest of which type of pet? bird
- Write two of your own questions that can be answered using the graph.  
Answers will vary. Possible answers:  
How many pets in all are at the kennel? How many more dogs than birds are at the kennel?



# Remembering

Multiply or divide.

1.  $7 \times 3 = \underline{21}$

2.  $4 \times \underline{5} = 20$

3.  $81 \div 9 = \underline{9}$

4.  $\frac{8}{2} = \underline{4}$

5.  $5 \cdot 9 = \underline{45}$

6.  $2 \times \underline{6} = 12$

Write an equation and solve the problem.

7. The toy store receives a shipment of games.  
There are 8 boxes. Each box has 20 games.  
How many games are in the shipment?

$8 \times 20 = g; g = 160; 160 \text{ games}$

Solve. Use a clock or sketch a number line diagram to help you.

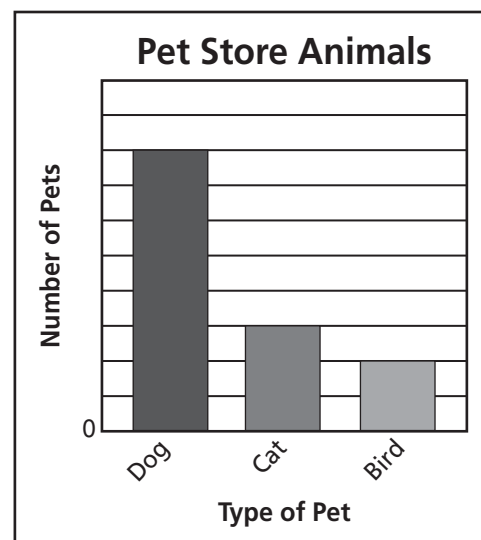
8. Emily arrives at school at 8:35 A.M. Together reading and math last for 1 hour 35 minutes. Then Emily goes to band practice for 45 minutes. What time does band practice end?

$10:55 \text{ A.M.}$

9. **Stretch Your Thinking** Use the graph at the right. If the pet store had 10 more birds, the number of dogs would be double the number of birds. What numbers should be on the scale? Explain how you solved.

$0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50;$

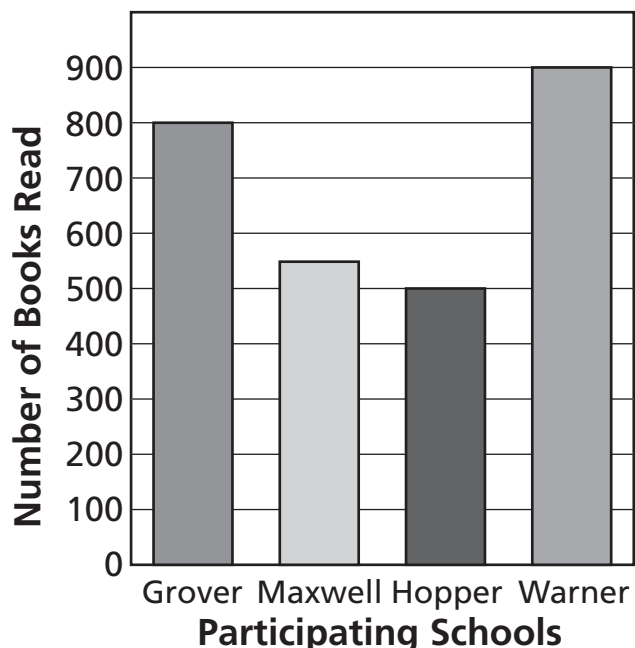
The bar for bird needs to go up two lines on the scale, which is two intervals, to be equal to half of the bar for dog. If two intervals equal 10, then each interval is 5.



# Homework

Use the vertical bar graph to answer the questions.

## Sunnytown Reading Festival



1. About how many books did students at Maxwell School read?

about 550 books

2. How many more books did students at Grover School read than students at Hopper School?

300 books

3. How many fewer books did students at Hopper School read than students at Warner School?

400 books

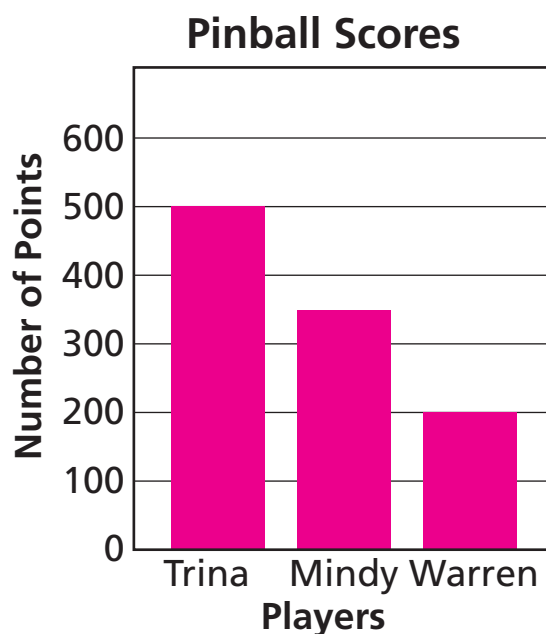
4. How many more books did the students at Maxwell need to read to have the same number of books as Warner?

350 books

5. Use the information in this table to make a vertical bar graph.

## Pinball Scores

Player	Points
Trina	500
Mindy	350
Warren	200



# Remembering

Multiply or divide to find the unknown numbers.

1.  $16 = \underline{4} \times 4$

2.  $\underline{32} = 4 \times 8$

3.  $42 \div 7 = \underline{6}$

4.  $8 = 56 \div \underline{7}$

5.  $2 \times \underline{5} = 10$

6.  $9 \times 3 = \underline{27}$

Use the horizontal bar graph to answer each question.

7. How many markers are there?

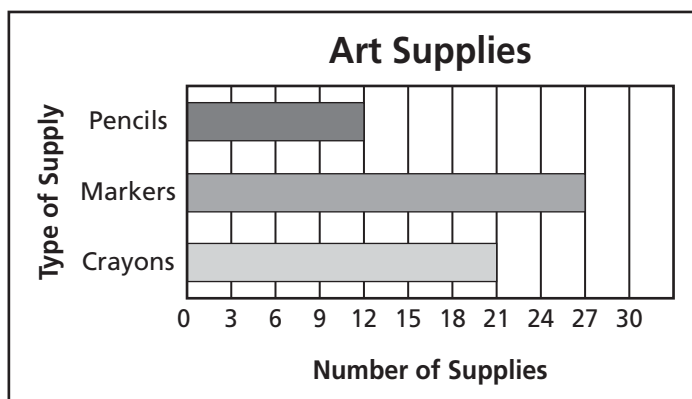
27 markers

8. How many more crayons are there than pencils?

9 more crayons

9. How many fewer pencils are there than markers?

15 fewer pencils

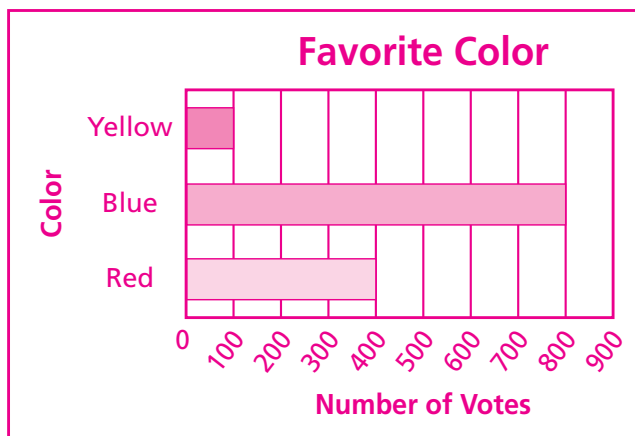


10. Write your own question that can be answered using the graph. **Answers will vary.**

**Possible answer:** How many pencils and markers are there in all? 39 pencils and markers

11. **Stretch Your Thinking** Draw a Favorite Color horizontal bar graph in which red has 300 more votes than yellow, and blue has double the votes of red. Use a scale with an interval of 100.

Sample graph shown.



# Homework

Measure the lengths of 12 shoes at your home to the nearest  $\frac{1}{2}$  inch. Record the data in the Tally Chart and then make a Frequency Table. Possible data are shown.

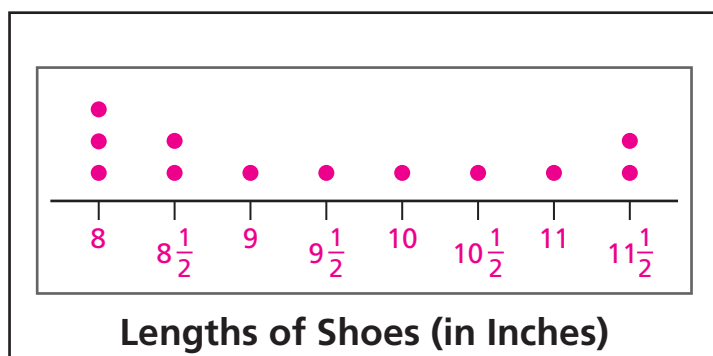
1.

Tally Chart	
Length	Tally
8	
$8\frac{1}{2}$	
9	
$9\frac{1}{2}$	
10	
$10\frac{1}{2}$	
11	
$11\frac{1}{2}$	

Frequency Table	
Length	Tally
8	3
$8\frac{1}{2}$	2
9	1
$9\frac{1}{2}$	1
10	1
$10\frac{1}{2}$	1
11	1
$11\frac{1}{2}$	2

Use the data above to make a line plot. Possible line plot is shown.

2.



Possible answers are shown.

Use the data displays to answer the questions.

3. What is the length of the shortest shoe?

8 inches

4. What is the length of the longest shoe?

$11\frac{1}{2}$  inches

5. Which length appears the most often?

8 inches

6. Write a question that can be answered using the

data displayed on the line plot. Possible question: How many more shoes were 8 inches long than  $10\frac{1}{2}$  inches long? 2 shoes

# Remembering

Complete.

1.  $9 + (3 \times 0) =$  9

2.  $21 \times 1 =$  21

3.  $4 \times (3 + 3) =$  24

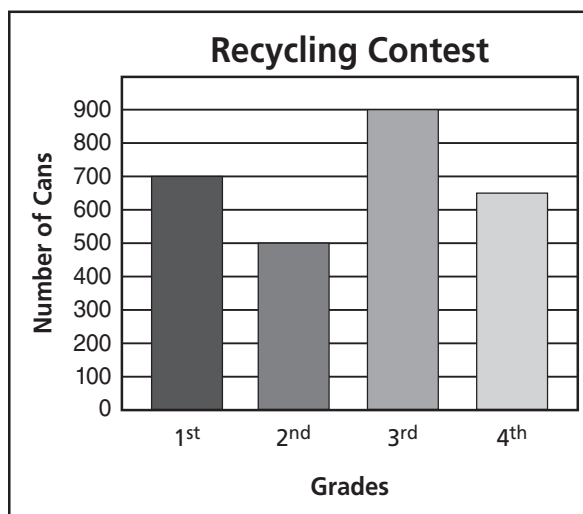
4.  $3 \times (5 + 1) =$  18

5.  $5 \times 9 = 9 \times$  5  $=$  45

6.  $(9 + 1) \times 3 =$  30

Use the vertical bar graph to answer the questions.

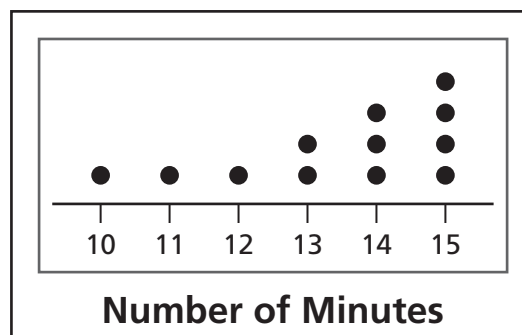
7. How many more cans did the 3rd grade collect than the 2nd grade? 400 more cans
8. How many fewer cans did the 2nd grade collect than the 1st grade? 200 fewer cans
9. About how many more cans would the 4th grade have to collect to have the same number as the grade with the most cans? about 250 cans



10. **Stretch Your Thinking** You need to find how many people drew a picture in less than 12 minutes. Which data display is easier to use to find the answer? Explain.

Minutes to Draw Picture			
Steve	10	Rob	14
Lauren	12	Nikki	13
Claudia	14	Jose	15
Erin	15	Tom	15
Joe	13	Helen	11
Greg	15	Tim	14

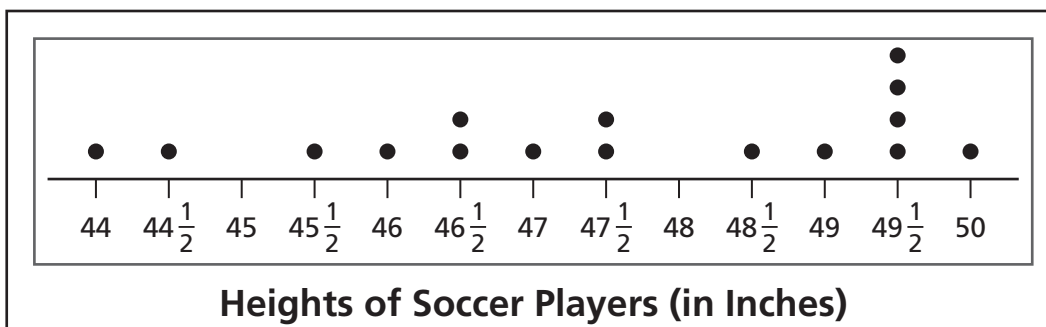
**Minutes to Draw a Picture**



The line plot is easier to use. I can quickly see 2 people drew in less than 12 minutes. The table has the same information, but the data isn't organized to read as quickly.

# Homework

The coach of the girls' soccer team measured the heights of the players to the nearest  $\frac{1}{2}$  inch. She recorded the heights in the line plot below.



Use the line plot to solve the problems.

1. How many players are  $47\frac{1}{2}$  inches tall?

2 players

2. What is the difference in height between the tallest player on the team and the shortest player?

6 inches

3. What is the most frequent height?

$49\frac{1}{2}$  inches

4. How many players are on the soccer team?

16 players

5. Are there more players  $47\frac{1}{2}$  inches tall and greater or less than  $47\frac{1}{2}$  inches tall?

$47\frac{1}{2}$  inches tall and greater

6. How many more players are  $49\frac{1}{2}$  inches than  $46\frac{1}{2}$  inches tall?

2 more players

# Remembering

Write an equation and solve the problem. Equations may vary.

1. Jon used 1-foot square tiles to cover his bathroom floor. The bathroom is 8 feet long and 10 feet wide. How many tiles did he use to cover his floor?

$$1 \times 8 \times 10 = t, t = 80; 80 \text{ tiles}$$

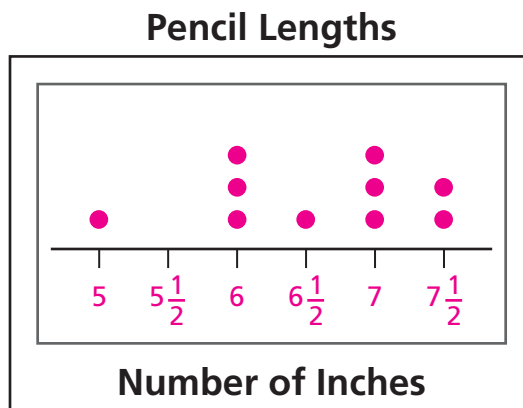
2. The principal buys 42 red cups and 21 blue cups. She puts 7 cups on each table. How many tables will have cups?

$$(42 + 21) \div 7 = t, t = 9; 9 \text{ tables}$$

Use the data below to make a line plot. Possible line plot is shown.

3.

Lengths of Pencils in Inches			
Lizzie	$7\frac{1}{2}$	Carl	6
Mario	5	Aja	6
Jenn	$6\frac{1}{2}$	Joe	$7\frac{1}{2}$
Travis	7	Jung	7
Karen	6	Terrell	7



4. **Stretch Your Thinking** You need to find the height of most third graders at your school. What type of data display would you use? Explain.

Possible answer: line plot: If I use a line plot, I can quickly see which number has the most dots over it to know which height is the most frequent.



# Homework

Measure the length of a smile of 10 different people to the nearest  $\frac{1}{2}$  inch.

1. Record the lengths in the box below.

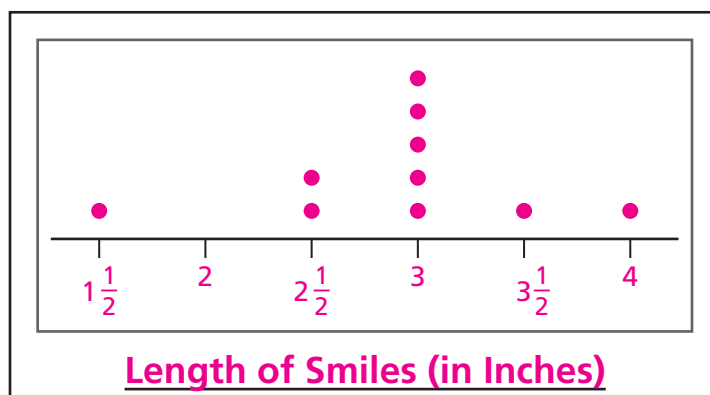
Possible data are shown.

3
4
$3\frac{1}{2}$
$2\frac{1}{2}$
3
$2\frac{1}{2}$
3
$1\frac{1}{2}$
3

2. Organize the measurement data in a frequency table and a line plot.

Frequency Table	
Length	Tally
$1\frac{1}{2}$	1
2	
$2\frac{1}{2}$	2
3	5
$3\frac{1}{2}$	1
4	1

Line Plot



3. Describe what your line plot shows.

Sample answer: The line plot shows the lengths of smiles. Most people's smiles were around 3 inches.

# Remembering

Write an equation and solve the problem. Equations and letters for variables may vary. Samples are given.

1. There are 72 skateboards in the shop. If Todd sells 8 each day, how many days will it take him to sell all of the skateboards?

$$72 \div 8 = d \text{ or } d \times 8 = 72; d = 9 \text{ days}$$

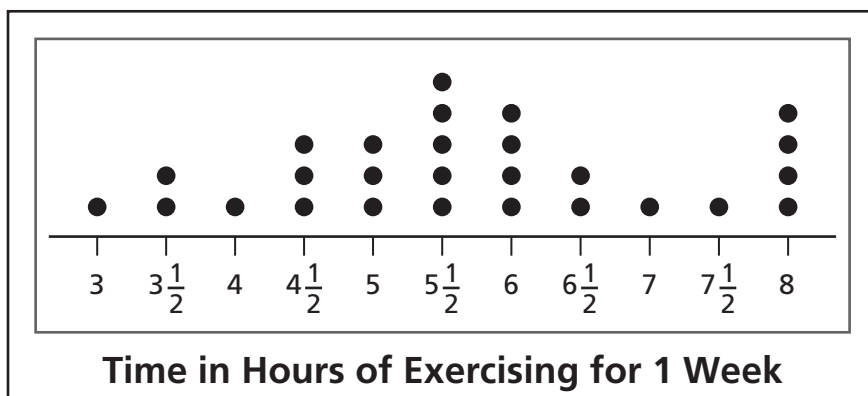
Complete.

2.  $36 = \underline{9} \times 4$

3.  $\underline{9} \times 9 = 81$

4.  $\underline{9} = 54 \div 6$

Use the line plot to solve the problems.



5. How many people exercised for 6 hours?

4 people

6. Did more people exercise less than 5 hours or more than 6 hours?

more than 6 hours

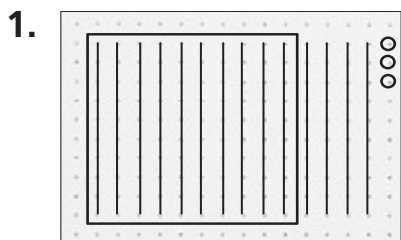
7. **Stretch Your Thinking** What can you conclude about the data in the line plot?

Possible answer: most people exercise between

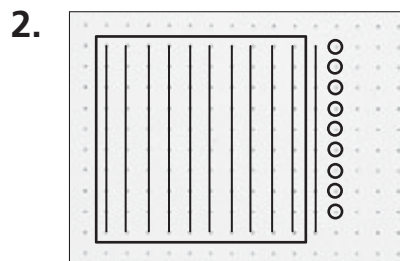
$4\frac{1}{2}$  and 6 hours per week.

## Homework

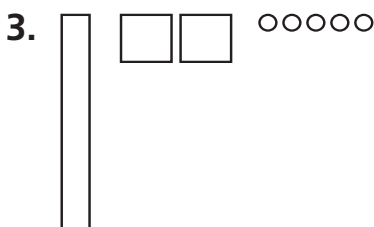
Write the number for each dot or place value drawing.



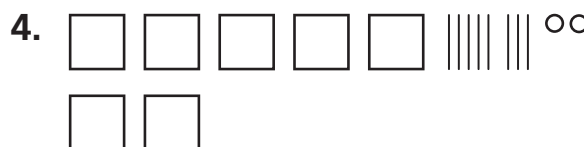
143



119



1,205



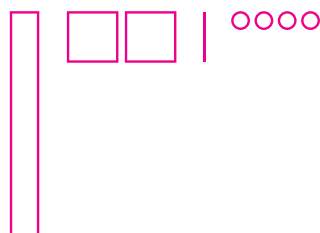
782

Make a place value drawing for each number.

5. 431



6. 1,214



Write the number for the words.

7. one thousand, sixty

1,060

8. four thousand, three hundred

4,300

9. ninety-seven

97

10. four hundred fifty-four

454

# Remembering

Write the 5s additions that show each multiplication.  
Then write the total.

1.  $6 * (5) = \underline{5 + 5 + 5 + 5 + 5 + 5} = \underline{30}$

2.  $9 \times (5) = \underline{5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5} = \underline{45}$

Solve each problem.

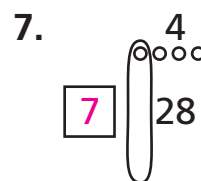
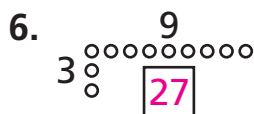
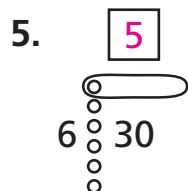
3. Sam has 6 toy spiders. Each spider has 8 legs.  
How many legs are there in all?

48 legs

4. Ms. Adams spends \$42. She buys books that  
cost \$6 each. How many books does she buy?

7 books

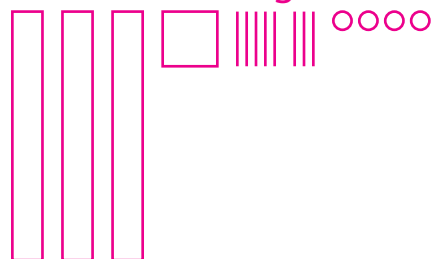
Find the unknown number for each Fast Array drawing.



8. **Stretch Your Thinking** Make a place value drawing of a number that has double the number of tens as ones and 3 times the number of thousands as hundreds. Write the number.

Possible answer: 3,184

Possible drawing shown.



**Homework****Write the number.**

1.  $300 + 20 + 4 =$  324
2.  $500 + 40 + 3 =$  543
3.  $800 + 50 + 2 =$  852
4.  $600 + 70 =$  670
5.  $900 + 5 =$  905
6.  $1,000 + 50 =$  1,050
7. 7 hundreds + 6 tens + 5 ones = 765
8. 3 hundreds + 5 tens + 6 ones = 356
9. 4 hundreds + 3 ones = 403
10. 2 hundreds + 7 tens = 270
11. 6 hundreds + 2 tens = 620
12. 2 thousands + 9 tens + 8 ones = 2,098

**Write the number in expanded form in two ways.**

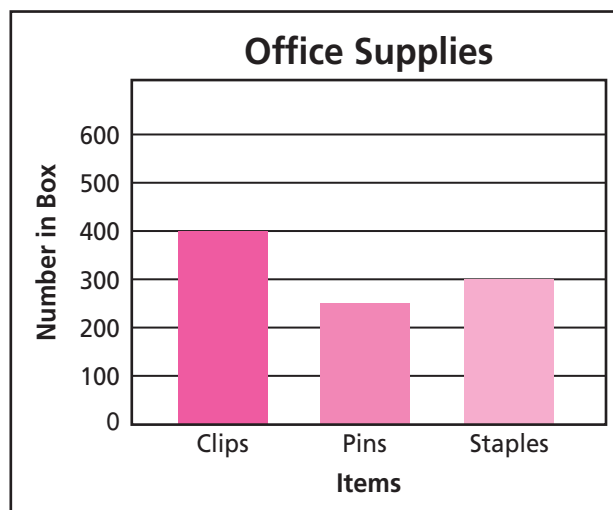
13. 272  
 $200 + 70 + 2$       2 hundreds + 7 tens + 2 ones
14. 420  
 $400 + 20$       4 hundreds + 2 tens
15. 585  
 $500 + 80 + 5$       5 hundreds + 8 tens + 5 ones
16. 604  
 $600 + 4$       6 hundreds + 4 ones
17. 732  
 $700 + 30 + 2$       7 hundreds + 3 tens + 2 ones
18. 2,107  
 $2000 + 100 + 7$       2 thousands + 1 hundred + 7 ones

# Remembering

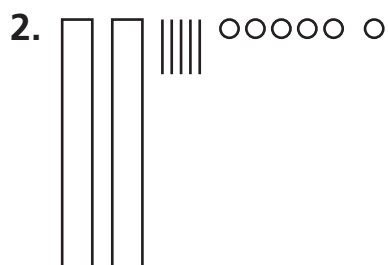
Use the information in this table to make a vertical bar graph.

## 1. Office Supplies

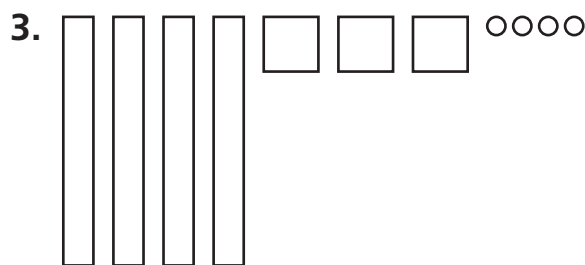
Items	Number in Box
Clips	400
Pins	250
Staples	300



Write the number for each place value drawing.



2,056



4,304

4. **Stretch Your Thinking** Anton says  $2,000 + 300 + 70 + 5$  is the same as 23 hundreds + 7 tens + 5 ones. Is he correct? Explain.

Yes, Anton is correct.  $2,000 + 300 = 2,300$ . This is 2 thousands + 3 hundreds, or 23 hundreds.

**Homework**

Use a place value drawing to help you solve each problem. Label your answers.

*Show your work.*

At Kyle's birthday party, he gave each of his 8 friends a bag. Each bag had 10 party favors.

1. How many favors did Kyle give out altogether?

80 favors

A farmer had 612 tomatoes. He put them in baskets of 100.

2. How many baskets did he fill completely?

6 baskets

3. How many tomatoes were left over?

12 tomatoes

At the library, Eric is placing 112 books on shelves. Each shelf holds 10 books.

4. How many shelves can Eric fill completely?

11 shelves

5. How many books will be left over?

2 books

**Write the number for the words.**

6. one hundred sixty-seven 167      7. eighty-two 82

8. one hundred twenty 120      9. fifteen 15

10. four thousand, one hundred six 4,106

11. one thousand, ninety-nine 1,099

# Remembering

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

- a. Array Multiplication
- b. Array Division
- c. Equal Groups of Multiplication
- d. Equal Groups Division with Unknown Group Size
- e. Equal Groups Division with an Unknown Multiplier (number of groups)

1. Angela counts 18 people in canoes on the lake. There are 2 people in each canoe. How many canoes are in the lake?

e;  $18 \div 2 = 9$  canoes

2. Toby has all his cars in 7 rows. There are 5 cars in each row. How many cars does he have?

a;  $7 \times 5 = 35$  cars

Solve. Then circle the type of problem and the operation you used to solve it.

3. The team lines up in 7 rows to exercise. There are 6 runners in each row. How many runners are lined up?

42 runners

array

repeated groups

area

multiplication

division

Write the number.

4.  $100 + 40 + 8 =$  148

5.  $800 + 3 =$  803

6. 2 hundreds + 6 tens + 7 ones = 267

7. **Stretch Your Thinking** Jordan has 90 photos. Explain three ways he can arrange the photos in his album so he has the same number of photos on each page.

Possible answers: 9 pages with 10 photos each; 10 pages with 9 photos each; 18 pages with 5 photos each.



**Homework**

Unscramble the place values and write the number.

1. 5 hundreds + 0 ones + 8 tens

580

2. 2 ones + 1 ten + 7 hundreds

712

3. 9 hundreds + 0 tens + 8 ones

908

4. 7 tens + 7 hundreds + 3 ones

773

5. 3 tens + 1 one + 2 hundreds

231

6. 3 ones + 2 hundreds + 9 tens

293

Solve each problem. Label your answer.

Ms. Chang gave a box of 10 colored pencils to each of her 17 students.

7. How many pencils did Ms. Chang give out?

170 pencils

The Finicky Bakery puts exactly 100 raisins in each carrot cake they bake. They have 233 raisins.

8. How many carrot cakes can they make?

2 cakes

9. How many raisins will be left over?

33 raisins

Dora won 146 prize tickets at the town fair. She needs 10 tickets to get a small toy.

10. How many toys can she get with her tickets?

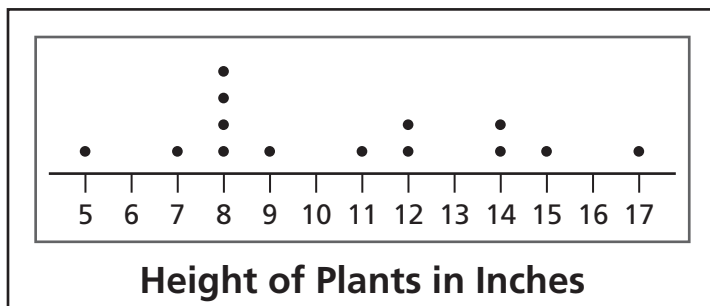
14 toys

11. How many tickets will she have left?

6 tickets

# Remembering

Use the line plot to answer the questions.



1. What height appears the most often?

8 inches

2. How many plants are there?

14 plants

3. How many plants are 14 inches tall?

2 plants

4. How many plants are 14 inches or taller?

4 plants

Use place value drawings to help you solve each problem. Label your answers.

The students are getting ready for a book sale. They have 543 books. They put the books in boxes of 10.

5. How many boxes do they fill completely?

54 boxes

6. How many books are left over?

3 books

7. **Stretch Your Thinking** Write a word problem in which the starting number is in the hundreds and the answer is 4 tickets were left over.

Possible answer: The train conductor collected 394 tickets. He puts them in stacks of 10. How many tickets were left over?; 4 tickets were left over.

**Homework****Solve by rounding to the nearest hundred.***Show your work.*

1. On Friday, 718 people went to the school play. On Saturday, 822 people went. About how many people saw the play altogether?

about 1,500 people

2. So far, Ms. Sahid has read 177 pages of her 392-page book. About how many pages does she have left to read?

about 200 pages

3. This year, the three biggest pumpkins at the Giant Pumpkin contest weighed 558 pounds, 644 pounds, and 715 pounds. About how much did the three pumpkins weigh together?

about 1,900 pounds

**Round each number to the nearest hundred.**

4. 352 400

5. 620 600

6. 298 300

7. 539 500

8. 1,014 1,000

9. 769 800

**Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.**

10.  $24 + 107 = 217$

not reasonable; 131

11.  $512 - 479 = 33$

reasonable; 33

12.  $485 - 312 = 362$

not reasonable; 173

13.  $1,201 + 179 = 1,380$

reasonable; 1,380

14.  $175 + 216 = 261$

not reasonable; 391

15.  $712 - 392 = 320$

reasonable; 320

# Remembering

Use drawings to represent the problems.

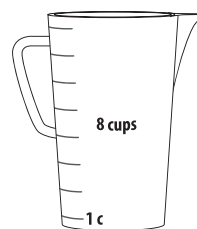
1. Mrs. Callen pours 8 pints of punch into a container. Her family drinks 6 pints of punch. How many pints of punch does she have left?

2 pints



2. The pitcher holds 8 cups of juice. Mr. Raj pours 3 cups into glasses. How many cups are in the pitcher now?

5 cups



Unscramble the place values and write the number.

3. 5 ones + 7 tens + 1 hundred

175

4. 4 tens + 3 hundreds + 8 ones

348

5. 9 hundreds + 2 ones + 6 tens

962

6. 2 tens + 8 ones + 5 hundreds

528

7. **Stretch Your Thinking** Adult and student tickets were sold for a concert. When the numbers of adult tickets and student tickets are rounded, the total number of tickets sold was about 1,200. List four different combinations of adult and student tickets that might have been sold. **Possible combinations:**

adults 562 and students 638

adults 820 and students 383

adults 935 and students 349

adults 781 and students 435

**Homework**

Round each number to the nearest ten.

1. 907 910

2. 75 80

3. 196 200

Solve.

Students buying lunch at Rockwell Elementary School yesterday chose either burritos or pizza. 185 students chose burritos and 252 chose pizza.

4. Estimate the number of students who bought lunch by rounding each number to the nearest hundred.

about 500 students

5. Estimate how many students bought lunch by rounding each number to the nearest ten.

about 440 students

6. Find the total number of students who bought lunch. Which of your estimates is closer to the actual total? Explain. **Explanations may vary.**

437 students. Rounding to the nearest ten

gives the better estimate.

7. Draw a figure on a sheet of paper. Estimate how many pennies will fit inside the figure. Check your prediction using pennies.

Answers will vary.

Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.

8.  $57 - 39 = 81$

not reasonable; 18

9.  $143 - 74 = 69$

reasonable; 69

10.  $155 + 36 = 161$

not reasonable; 191

# Remembering

Add or subtract.

$$\begin{array}{r} 1. \quad 5 \\ + 8 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 2. \quad 9 \\ - 6 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 3. \quad 7 \\ + 8 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 4. \quad 10 \\ - 7 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 5. \quad 8 \\ + 3 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 6. \quad 18 \\ - 9 \\ \hline 9 \end{array}$$

Solve each problem. Label your answers with the correct units.

7. Mrs. Walters buys 30 square feet of outdoor carpeting for her patio. If one side of the carpet is 6 feet, what is the length of the adjacent side?

5 feet

8. The carpenter installs a rectangular wall that has a width of 5 feet and a height of 8 feet. He has square tiles that will cover 35 square feet. What is the area of the wall? Does the carpenter have enough tiles to cover the wall?

40 square feet; no

Use rounding to decide if the answer is reasonable.

Then find the answer to see if you were right.

$$\begin{array}{r} 9. \quad 1,385 + 115 = 1,500 \\ \text{reasonable; } 1,500 \end{array}$$

$$\begin{array}{r} 10. \quad 602 + 284 = 796 \\ \text{not reasonable; } 886 \end{array}$$

$$\begin{array}{r} 11. \quad 593 - 171 = 312 \\ \text{not reasonable; } 422 \end{array}$$

$$\begin{array}{r} 12. \quad 983 - 442 = 541 \\ \text{reasonable; } 541 \end{array}$$

$$\begin{array}{r} 13. \quad 381 + 475 = 856 \\ \text{reasonable; } 856 \end{array}$$

$$\begin{array}{r} 14. \quad 395 + 284 = 808 \\ \text{not reasonable; } 679 \end{array}$$

15. **Stretch Your Thinking** Look back at Exercises 9–14.

Choose an exercise that has a not reasonable answer.

Explain why you said the answer was not reasonable.

Answers will vary. Possible answer: in Exercise 11, I rounded each number.  $600 - 200 = 400$ . I knew the answer needed to be around 400 and 312 is not close to 400.

# Homework

Solve using a numerical method and a proof drawing.

1. Nadia had 392 stickers. She bought 447 more. How many stickers does she have now?

839 stickers

$$\begin{array}{r} 392 \\ + 447 \\ \hline 839 \end{array}$$

2. South Elementary School has 537 students. North Elementary School has 386 students. How many students do the schools have altogether?

923 students

$$\begin{array}{r} 537 \\ + 386 \\ \hline 923 \end{array}$$

3.  $329 + 655 =$  984

$$\begin{array}{r} 329 \\ + 655 \\ \hline 984 \end{array}$$

4.  $439 + 492 =$  931

$$\begin{array}{r} 439 \\ + 492 \\ \hline 931 \end{array}$$

5.  $612 + 216 =$  828

$$\begin{array}{r} 612 \\ + 216 \\ \hline 828 \end{array}$$

6.  $231 + 397 =$  628

$$\begin{array}{r} 231 \\ + 397 \\ \hline 628 \end{array}$$

Unscramble the place values and write the number.

7. 4 hundreds + 2 tens + 5 ones 425

8. 7 ones + 3 hundreds 307

9. 3 tens + 9 hundreds 930

# Remembering

Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.

1.



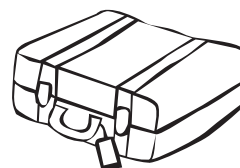
pound

2.



ounce

3.



pound

Choose the unit you would use to measure the mass of each object. Write *gram* or *kilogram*.

4.



gram

5.



gram

6.



kilogram

Solve.

The zoo has 218 animals in the outdoor exhibits and 454 animals in the indoor exhibits.

7. Estimate the number of animals the zoo has by rounding each number to the nearest hundred.

about 700 animals

8. Estimate how many animals the zoo has by rounding each number to the nearest ten.

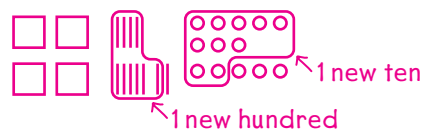
about 670 animals

9. **Stretch Your Thinking** Write an addition equation that will have a proof drawing with a new ten and a new hundred. Then make the proof drawing to check.

Answers will vary. Possible answer:

$$248 + 275 = 523$$

**Drawings will vary.**  
**Sample drawing shown.**



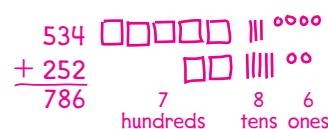


# Homework

Solve each problem using a numerical method and a proof drawing.

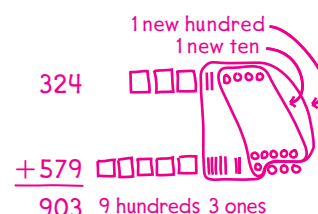
1. Delia guessed that there were 534 beans in a jar. When the contest ended, the beans were counted. There were 252 more beans than Delia guessed. How many beans were in the jar?

786 beans



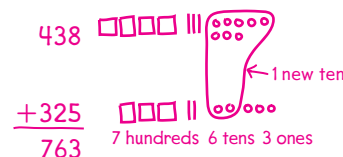
2. Sal's Sandwich Shop sold 324 sandwiches last week. This week they sold 579 more sandwiches than they sold last week. How many sandwiches did the shop sell this week?

903 sandwiches



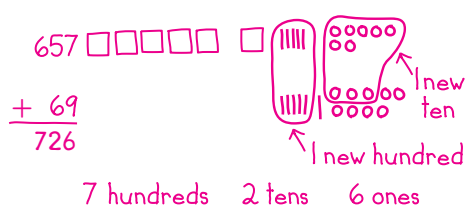
3. An on-line music store sold 438 CDs on Monday and 325 CDs on Tuesday. How many CDs did the store sell on those two days?

763 CDs

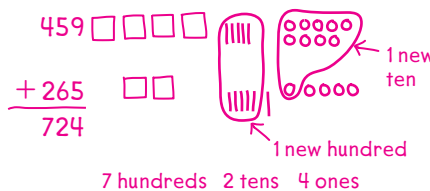


Write each addition vertically. Line up the places correctly and add. Make a proof drawing to show your answer is correct.

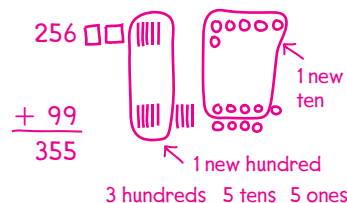
4.  $657 + 69 = \underline{726}$



5.  $459 + 265 = \underline{724}$



6.  $256 + 99 = \underline{355}$



# Remembering

Solve. Use drawings if you need to.

1. The adults on Team A pour 4 liters of water into a bucket. The students on Team A pour 5 liters of water into the bucket. How many liters of water did Team A pour into the bucket?


9 liters

2. The florist has a bud vase that contains 950 milliliters of water. She pours out 320 milliliters of the water. How much water is left in the vase?

630 milliliters

Solve using a numerical method and a proof drawing.

3. Jared and Rachel are playing a video game. Jared has 463 points. Rachel has 329 points. How many points do they have altogether?

$$\begin{array}{r} 463 \\ + 329 \\ \hline 792 \end{array}$$


792 points

4.  $525 + 346 =$  871



5. **Stretch Your Thinking** Write a word problem that would have a proof drawing with no new tens and no new hundreds. Explain how you chose your numbers. Solve using a numerical method and proof drawing.



Answers will vary. Possible answer: Mr. Johnson has read 185 pages in his book. Today he read 213 pages. How many pages has he read?; 398 pages; I choose two numbers for each place value that when added had a total less than 10.

**Homework**

Write each addition vertically. Decide which new groups you will make. Then, add to see if you were correct.

1.  $256 + 273$  529

A new ten? no

A new hundred? yes

$$\begin{array}{r} 273 \\ + 256 \\ \hline 529 \end{array}$$

2.  $784 + 41$  825

A new ten? no

A new hundred? yes

$$\begin{array}{r} 784 \\ + 41 \\ \hline 825 \end{array}$$

3.  $184 + 924$  1,108

A new ten? no

A new hundred? yes

A new thousand? yes

$$\begin{array}{r} 184 \\ + 924 \\ \hline 1,108 \end{array}$$

**Add.**

4.  $\begin{array}{r} 490 \\ + 421 \\ \hline 911 \end{array}$

5.  $\begin{array}{r} 512 \\ + 355 \\ \hline 867 \end{array}$

6.  $\begin{array}{r} 1,629 \\ + 78 \\ \hline 1,707 \end{array}$

7.  $\begin{array}{r} 239 \\ + 74 \\ \hline 313 \end{array}$

8.  $\begin{array}{r} 198 \\ + 299 \\ \hline 497 \end{array}$

9.  $\begin{array}{r} 1,199 \\ + 227 \\ \hline 1,426 \end{array}$

**Write an equation and solve the problem.**

10. The orchard has 246 fruit trees and 59 pecan trees.  
How many trees does the orchard have altogether?

305 trees;  $246 + 59 = n$ ,  $n = 305$

# Remembering

Estimate the length of the line segment in inches.  
Then measure it to the nearest inch.



Estimate: Answers will vary.

Actual: 2 inches

Estimate the length of the line segment in inches.  
Then measure it to the nearest  $\frac{1}{2}$  inch.



Estimate: Answers will vary.

Actual:  $5\frac{1}{2}$  inches

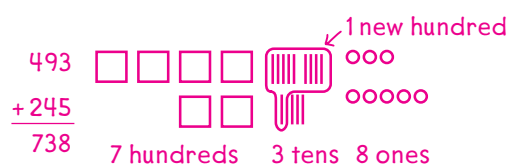


Estimate: Answers will vary.

Actual:  $2\frac{1}{2}$  inches

Solve the problem using a numerical method and  
a proof drawing.

4. Sarah has 493 stickers in her collection.  
Tyler has 245 stickers in his collection.  
How many stickers do they have  
altogether?



738 stickers

5. **Stretch Your Thinking** Write an addition  
equation that will have a new thousand,  
a new hundred, and a new ten. Then solve.  
Explain how you chose your numbers.

Answers will vary. Possible answer shown.

I chose two numbers that have a sum of  
10 or more for each place value.

$$\begin{array}{r} 592 \\ + 639 \\ \hline 1,231 \end{array}$$

**Homework****Record Weights of Saltwater Fish**

Type of Fish	Weight in Pounds
Atlantic Halibut	255
Blue Shark	454
Giant Sea Bass	563
Pacific Halibut	459
Yellowfin Tuna	388

**Write an equation and solve the problem.***Show your work.*

1. What is the combined weight of the two smallest saltwater fish in the table?

643 pounds;  $255 + 388 = n$ ,  $n = 643$

2. The total weight for which two fish is 913 pounds?

Blue Shark and Pacific Halibut;  $454 + 459 = 913$

3. The total for which two fish is about 820 pounds?

Giant Sea Bass and Atlantic Halibut;  $560 + 260 = 820$

4. The total weight for which two fish is about 700 pounds?

Atlantic Halibut and Yellowfin Tuna;  $300 + 400 = 700$

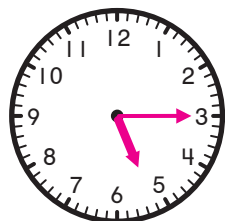
5. The weight of which two fish rounds to the same number?

Blue Shark and Pacific Halibut;  $500 = 500$

# Remembering

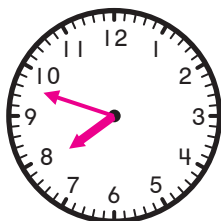
Draw the hands on the analog clock. Write the time on the digital clock.

1. quarter after five



5:15

2. forty-eight minutes after seven



7:48

3. ten thirty



10:30

Write each addition vertically. Decide which new groups you will make. Then, add to see if you were correct.

4.  $481 + 236$

A new ten? no

A new hundred? yes

$$\begin{array}{r} 481 \\ + 236 \\ \hline 717 \end{array}$$

5.  $479 + 380$

A new ten? no

A new hundred? yes

$$\begin{array}{r} 479 \\ + 380 \\ \hline 859 \end{array}$$

6. **Stretch Your Thinking** Write three different addition equations that have a sum of 834 and require at least one new group.

$$\begin{array}{r} 517 \\ + 317 \\ \hline 834 \end{array}$$

$$\begin{array}{r} 459 \\ + 375 \\ \hline 834 \end{array}$$

$$\begin{array}{r} 583 \\ + 251 \\ \hline 834 \end{array}$$

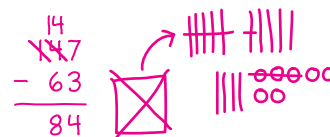
Answers will vary. Possible answers shown.

# Homework

**Make a proof drawing and subtract numerically.  
Show your ungroupings.**

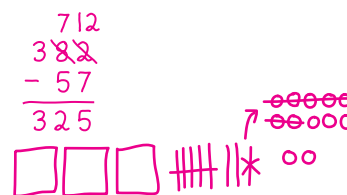
1. Oksana made 147 bracelets to sell at the art fair.  
By the end of the day Saturday, she had sold  
63 bracelets. How many bracelets did she have left?

**84 bracelets**



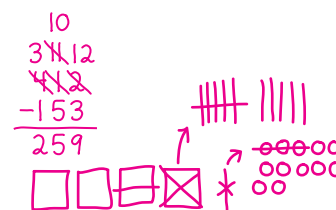
2. Ms. Chao collects buttons. She had 382 buttons,  
but sold 57 of them to other collectors. How  
many buttons does she have left?

**325 buttons**



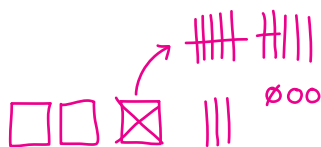
3. On Monday morning, a bookstore had 412 copies  
of a popular book. By the end of the day, they  
had sold 153 copies of the book. How many  
copies did they have left?

**259 books**

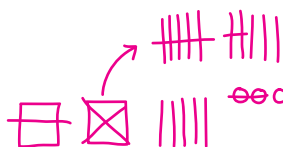


**Subtract. Show your ungroupings. Make proof drawings if you need to.**

$$\begin{array}{r} 4. \quad 333 \\ - \quad 71 \\ \hline 262 \end{array}$$



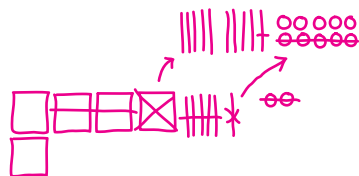
$$\begin{array}{r} 5. \quad 253 \\ - \quad 172 \\ \hline 81 \end{array}$$



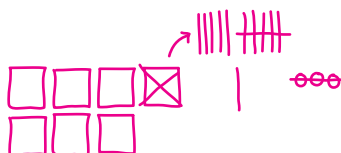
$$\begin{array}{r} 6. \quad 435 \\ - \quad 89 \\ \hline 346 \end{array}$$



$$\begin{array}{r} 7. \quad 562 \\ - \quad 267 \\ \hline 295 \end{array}$$



$$\begin{array}{r} 8. \quad 713 \\ - \quad 53 \\ \hline 660 \end{array}$$



$$\begin{array}{r} 9. \quad 825 \\ - \quad 716 \\ \hline 109 \end{array}$$



# Remembering

Add or subtract.

$$\begin{array}{r} 15 \\ - 8 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 8 \\ + 8 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 3 \\ + 9 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 14 \\ - 5 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 7 \\ + 4 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 13 \\ - 6 \\ \hline 7 \end{array}$$

Solve. Use a clock or sketch a number line diagram if you need to.

2. Brandon arrives at practice at 5:30 P.M. The team does warm-up exercises for 20 minutes. Then they practice for 50 minutes. What time does practice end?

6:40 P.M.

3. Kate wants to watch a DVD that lasts 1 hour 30 minutes. What time does she have to start the DVD to be finished by 4:45 P.M.?

3:15 P.M.

Pet Sales

Type of Pet	Number
Birds	363
Fish	278
Cats	368
Dogs	451

Use the table for 4–5. Write an equation and solve the problem.

4. The total for which two pet sales is 731?

363 + 368; birds and cats

Show Your Work

5. What is the total number of sales for the two pets with the least numbers of sales?

363 + 278 = 641; 641

6. **Stretch Your Thinking** Compare and contrast an addition place value drawing and a subtraction place value drawing.

Possible answer: both use the same shapes for the numbers. In addition both numbers are modeled and in subtraction only the greater number is modeled and the other number is crossed out.



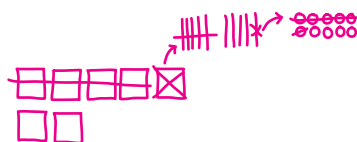
**Homework**

**Subtract. Show your ungroupings. Use proof drawings if you need to.**

$$\begin{array}{r} 1. \quad 400 \\ - 341 \\ \hline 59 \end{array}$$



$$\begin{array}{r} 2. \quad 700 \\ - 456 \\ \hline 244 \end{array}$$



$$\begin{array}{r} 3. \quad 300 \\ - 118 \\ \hline 182 \end{array}$$



$$\begin{array}{r} 4. \quad 500 \\ - 238 \\ \hline 262 \end{array}$$



$$\begin{array}{r} 5. \quad 200 \\ - 47 \\ \hline 153 \end{array}$$



$$\begin{array}{r} 6. \quad 800 \\ - 572 \\ \hline 228 \end{array}$$



**Solve each problem.**

7. The school cafeteria holds 200 students.

Mr. Thompson's class has 22 students who eat lunch in the cafeteria. How many more students can still eat in the cafeteria when Mr. Thompson's class has lunch?

**178 students**

8. The school library has 300 books on the topic of sports. Students have checked out seventy-four of those books. How many books on the topic of sports still remain in the library?

**226 books**

9. One hundred forty-five people attended the school basketball game. The game was played in an auditorium that seats four hundred people. How many more people could have attended the basketball game?

**255 people**

# Remembering

Complete the table.

1.	Start Time	Elapsed Time	End Time
	8:42 A.M.	1 hour 13 minutes	9:55 A.M.
	2:13 P.M.	3 hours 24 minutes	5:37 P.M.
	6:39 P.M.	2 hours 14 minutes	8:53 P.M.
	3:09 A.M.	4 hours 51 minutes	8:00 A.M.
	1:20 A.M.	2 hours 30 minutes	3:50 A.M.
	7:16 P.M.	1 hour 26 minutes	8:42 P.M.

Make a proof drawing and subtract numerically.  
Show your ungroupings.

2. The PTA has 248 tickets for the school raffle. They sold 82 tickets in the morning. How many tickets are left to sell?

166 tickets

$$\begin{array}{r} 1\ 14 \\ 248 \\ -82 \\ \hline 166 \end{array}$$

3. There are 361 paper folders in the box. Brenda uses 85 of them for a presentation. How many paper folders are left in the box?

276 paper folders

$$\begin{array}{r} 2\ 15\ 11 \\ 361 \\ -85 \\ \hline 276 \end{array}$$

4. The restaurant has 436 straws in a basket. If they use 158 straws at lunch, how many straws will be left in the basket?

278 straws

$$\begin{array}{r} 3\ 12\ 16 \\ 436 \\ -158 \\ \hline 278 \end{array}$$

5. **Stretch Your Thinking** Write a word problem to match the proof drawing. Solve your problem.

Possible answer: Miles has 500 baseball cards in his collection. He sells 179 of his baseball cards. How many baseball cards does Miles have left in his collection? 321 baseball cards

**Homework****Solve each problem.**

1. Colin needs 300 tickets to win a coloring book at the arcade. He already has 124 tickets. How many more tickets does he need?

\_\_\_\_\_

176 tickets

2. When the bookmobile arrived, it had 321 books. At the end of the day, there were 87 books left. How many books were borrowed?

\_\_\_\_\_

234 books

3. There are 504 students in Maya's school. All the students were scheduled to go on a field trip to the zoo. A total of 68 students were not able to go. How many students went on the field trip?

\_\_\_\_\_

436 students

4. Mark collects sports cards. He has 452 cards in his collection. He has 273 football cards and the rest are baseball cards. How many baseball cards does Mark have in his collection?

\_\_\_\_\_

179 cards

**Subtract.**

5. 
$$\begin{array}{r} 972 \\ - 129 \\ \hline 843 \end{array}$$

6. 
$$\begin{array}{r} 300 \\ - 276 \\ \hline 24 \end{array}$$

7. 
$$\begin{array}{r} 725 \\ - 458 \\ \hline 267 \end{array}$$

8. 
$$\begin{array}{r} 462 \\ - 189 \\ \hline 273 \end{array}$$

9. 
$$\begin{array}{r} 500 \\ - 236 \\ \hline 264 \end{array}$$

10. 
$$\begin{array}{r} 997 \\ - 218 \\ \hline 779 \end{array}$$

11. Write a word problem for one of the subtraction exercises above.

\_\_\_\_\_

Answers will vary.

\_\_\_\_\_

\_\_\_\_\_

# Remembering

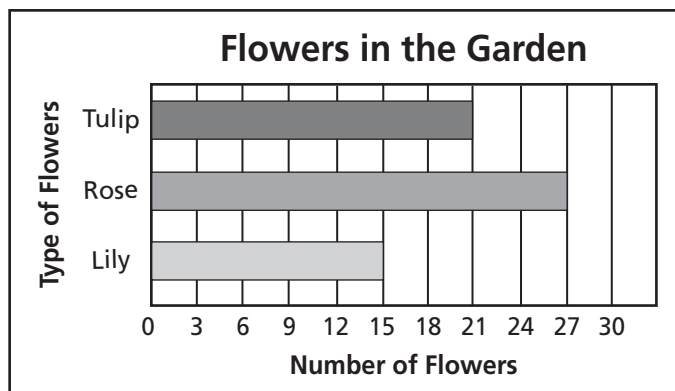
Use the horizontal bar graph to answer each question.

1. How many roses are in the garden?

27 roses

2. How many more tulips are there than lilies?

6 more tulips

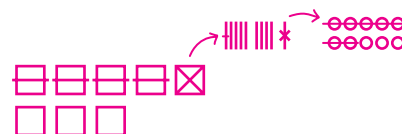
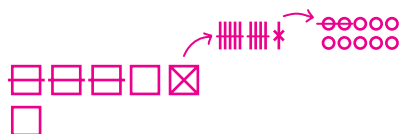
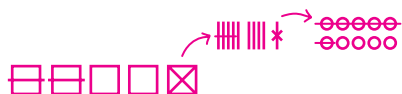


Subtract. Show your ungroupings. Use proof drawings if you need to.

$$\begin{array}{r} 3. \quad 500 \\ - 246 \\ \hline 254 \end{array}$$

$$\begin{array}{r} 4. \quad 600 \\ - 392 \\ \hline 208 \end{array}$$

$$\begin{array}{r} 5. \quad 800 \\ - 417 \\ \hline 383 \end{array}$$



6. **Stretch Your Thinking** Alexander starts with 500 star stickers. He uses some to make a poster. Now he has 286 star stickers. Which poster does he make? Explain how to solve.

Night Sky; Possible answer: After

regrouping the 0 in 500 I have 10

ones. The answer has 6 ones, so I will

look for a number that has 4 ones.

There are two answers I should try.

Poster	Number of Stars
Rewards	376
Constellations	286
Night Sky	214
Flags	204

**Homework**

Read each problem. Then follow the directions below the problem. Here is an addition word problem:

At the school play, 194 people attended the show on the first night and 185 people attended the show on the second night. How many people attended the show the two nights?

1. Solve the problem. 379 people

2. Write a subtraction word problem related to the addition word problem. Then find the answer without doing any calculations.

Possible answer: There were 379 people who  
attended the school play. On the first night,  
194 people attended the show. How many people  
attended the show on the second night? 185 people

Here is a subtraction word problem:

Rosi had 200 sheets of construction paper. She used 67 sheets to make invitations to a party and the rest to make decorations. How many sheets did she use to make decorations?

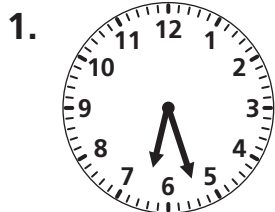
3. Solve the problem. 133 sheets

4. Write an addition word problem related to the subtraction word problem. Then find the answer without doing any calculations.

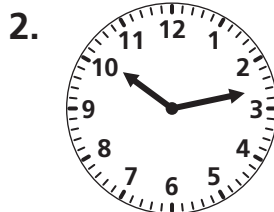
Possible answer: Rosi used 67 sheets of construction  
paper to make invitations. She used 133 sheets to  
make decorations. How many sheets did Rosi use  
in all? 200 sheets

# Remembering

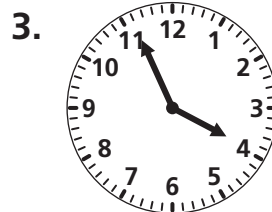
Write the times as minutes *after* an hour and minutes *before* an hour.



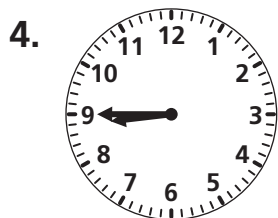
27 minutes after 6  
33 minutes before 7



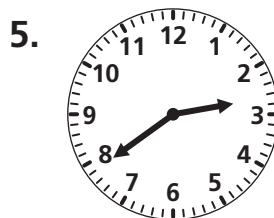
13 minutes after 10  
47 minutes before 11



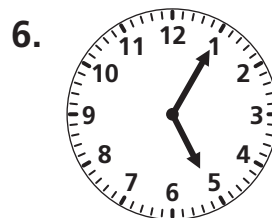
56 minutes after 3  
4 minutes before 4



45 minutes after 8  
15 minutes before 9



39 minutes after 2  
21 minutes before 3



5 minutes after 5  
55 minutes before 6

**Subtract.**

7. 
$$\begin{array}{r} 841 \\ - 617 \\ \hline 224 \end{array}$$

8. 
$$\begin{array}{r} 300 \\ - 138 \\ \hline 162 \end{array}$$

9. 
$$\begin{array}{r} 953 \\ - 386 \\ \hline 567 \end{array}$$

10. 
$$\begin{array}{r} 403 \\ - 248 \\ \hline 155 \end{array}$$

11. 
$$\begin{array}{r} 739 \\ - 492 \\ \hline 247 \end{array}$$

12. 
$$\begin{array}{r} 800 \\ - 361 \\ \hline 439 \end{array}$$

13. **Stretch Your Thinking** The sum of two numbers is 892. Write an addition equation with the sum of 892. Then write a related subtraction equation.

Possible answer:  $607 + 285 = 892$ ;  $892 - 285 = 607$

or  $892 - 607 = 285$

**Homework**

**Solve each problem.**

1. Joey has 450 baseball cards in his collection. If he gives his brother 190 cards, how many baseball cards will Joey have left in his collection?

260 baseball cards

2. Susan downloaded 425 songs onto her cell phone. She gave her friend 148 of the songs. How many songs does Susan still have?

277 songs

3. Sahil's school football team scored 202 points in their ten games. The teams they played scored 158 points in those same ten games. How many more points did Sahil's school team score?

44 more points

4. Jennifer travelled 950 miles to visit her grandparents for summer vacation. She travelled 487 miles the first day. How many more miles did Jennifer need to travel to reach her grandparents?

463 miles

5. At the beginning of the school year, the bookstore had 130 copies of the third grade math book. By the end of the first month of school, all but 16 books were sold. How many math books were sold during the first month of school?

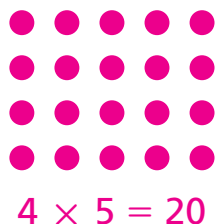
114 math books

# Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer to the problem.

1. The car dealership has its used cars arranged in 4 rows, with 5 cars in each row. How many used cars are there?

20 used cars; Possible drawing is shown.



Subtract.

$$\begin{array}{r} 2. \quad 395 \\ - 104 \\ \hline 291 \end{array}$$

$$\begin{array}{r} 3. \quad 800 \\ - 352 \\ \hline 448 \end{array}$$

$$\begin{array}{r} 4. \quad 572 \\ - 498 \\ \hline 74 \end{array}$$

Read the problem. Then follow the directions below the problem. Here is an addition word problem:

Selena reads a book every week. The book she read last week had 149 pages. This week she just finished a book with 283 pages. How many pages did she read during the two weeks?

5. Solve the problem.

432 pages

6. Write a subtraction word problem related to the addition word problem in Exercise 5. Then find the answer.

Possible answer: Selena reads two books with a total of 432 pages.

One book has 149 pages. How many pages does the other book have?

Possible answer: 283 pages

7. **Stretch Your Thinking** Use the number 382 to write a subtraction equation in which only the tens is ungrouped. Solve.

Possible answer:  $673 - 382 = 291$



**Homework****Solve.**

1. Write and solve an addition word problem that has the numbers 268 and 487.

Answers will vary.

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2. Write and solve a subtraction word problem that has the numbers 194 and 526.

Answers will vary.

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3. The yearbook staff took a total of 905 photographs. They used 487 of the photographs in the yearbook. How many of the photographs were not used?

418 photographs

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4. Mr. Pinsky has to read a 362-page book for his book club. He read the first 129 pages last week. This week he has read 153 pages. How many pages does he have left to read?

80 pages

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5. Travis went to three different zoos during his summer vacation. He saw 250 animals in all. Of the animals, 163 were babies. How many animals were not babies?

87 animals

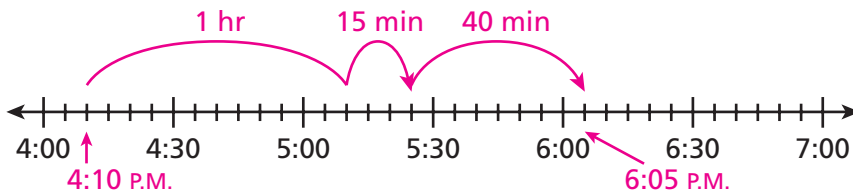
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# Remembering

Solve.

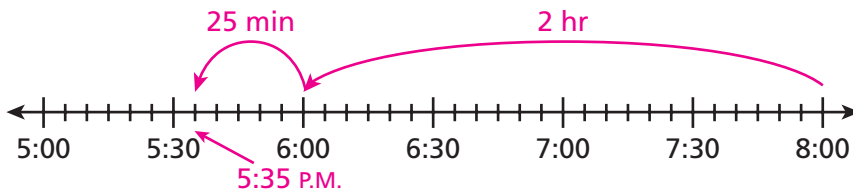
1. Kali's piano practice begins at 4:10 P.M. She practices for 1 hour 15 minutes. Then she spends 40 minutes helping her mom with laundry. What time does Kali finish helping her mom?

6:05 P.M.



2. Jamal finishes watching a movie at 8:00 P.M. The movie was 2 hours 25 minutes long. At what time did the movie start?

5:35 P.M.



Solve the problem.

3. The singing competition started with 794 contestants. Now, only 247 contestants are still in the competition. How many contestants are no longer in the competition?

547 contestants

4. **Stretch Your Thinking** Write a subtraction equation that has two 3-digit numbers with different hundreds digits and a difference of less than 100. Then solve.

Answers will vary. Possible answer shown:  $538 - 459 = 79$

**Homework**

**Solve each problem. Label your answers.**

1. Maya had a dozen white eggs and a dozen brown eggs in her refrigerator. She used 6 white eggs and 8 brown eggs to make breakfast. How many eggs does she have left?

10 eggs

2. Jake's family was on vacation for two weeks and five days. Seth's family was on vacation for three weeks and two days. How many fewer days was Jake on vacation than Seth?

4 fewer days

3. There are 48 dogs, 39 cats, and some birds at the pet store. There are a total of 99 pets. How many birds are at the pet store?

12 birds

4. The reading group checked out 36 library books. 17 books are fiction, 10 are biographies, and some are science. How many books are science?

9 books

**Use rounding to decide if the answer is reasonable. Write *yes* or *no*. Then find the answer to see if you were correct.**

5. A vendor at the baseball game sold 405 bottles of water on Saturday. She sold 127 fewer bottles on Sunday. She sold 178 bottles on Sunday.

no; 278 bottles

6. The bakery made 600 doughnuts. They made 384 more doughnuts than bagels. The bakery made 216 bagels.

yes; 216 bagels

7. Randall found 54 seashells and his sister found 37 seashells at the beach. Together they found 91 seashells at the beach.

yes; 91 seashells

8. Julia sold 56 tomatoes, 27 onions, and 38 peppers at the Farmers' Market. She sold 11 vegetables in all?

no; 121 vegetables

# Remembering

Write the first-step question and answer. Then solve the problem.

1. The music teacher receives 9 boxes of recorders. There are 6 recorders in each box. She gives them out to the third graders and has 5 recorders left. How many third graders received recorders?

How many recorders are there altogether? 54;

49 third graders

2. The league has 30 new basketballs. The league shares them equally among the 6 teams. Each team donates one ball to charity. How many new basketballs does each team have now?

How many basketballs did each team receive from the league?

5 basketballs; 4 new basketballs

Solve. Use drawings if you need to.

Show Your Work.

3. Mr. Franco buys 8 containers of laundry detergent. Each container has 6 liters of detergent. How many liters of detergent does Mr. Franco buy?

48 liters

4. Write and solve an addition word problem that has the numbers 495 and 247.

Answers will vary.

5. **Stretch Your Thinking** Jada has a collection of 179 horse stickers, 218 bear stickers, and 307 cat stickers. Jada says she has about 500 stickers altogether. Is Jada's estimate reasonable? Explain. How many stickers in all does Jada have in her collection?

$$\begin{array}{r} 12 \\ 179 \\ 218 \\ + 307 \\ \hline 704 \end{array}$$

Possible answer: no; I rounded each number to the nearest hundred.

$200 + 200 + 300 = 700$ . 500 is not close to 700, so it isn't a reasonable estimate; 704 stickers

# Homework

You can travel from China to Sweden, Moscow, Mexico, and Paris and then back to China and never leave the state of Maine.

Use the map for Problems 1–4.

## Solve.

- How much farther is it from Moscow to Sweden than Sweden to China?

$$11 \text{ miles; } 244 - 233 = 11$$

- If you traveled from China to Paris to Mexico and then to Moscow, how many miles would you travel in all?

$$246 \text{ miles; } 75 + 78 + 93 = 246$$

- Suppose you made the trip from China to Sweden, Moscow, Mexico, and Paris and then back to China. About how many miles would you travel?

$$\text{about } 720 \text{ miles; } 230 + 240 +$$

$$90 + 80 + 80 = 720$$

- If you travel at 60 miles per hour, about how many hours would it take you to travel from Moscow to Sweden?

$$\text{about } 4 \text{ hours}$$

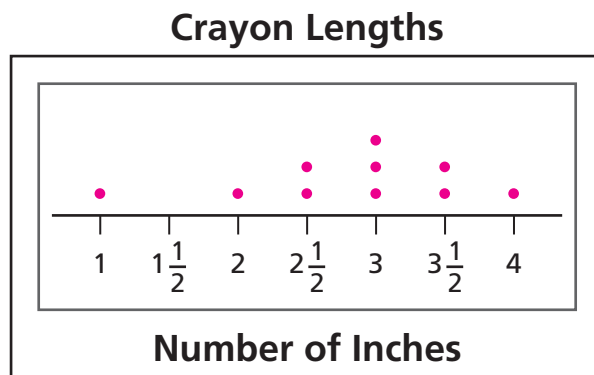


# Remembering

Use the data to make a line plot.

1.

Crayon Lengths in Inches			
Tony	$3\frac{1}{2}$	Ellen	$2\frac{1}{2}$
Rocky	1	Alea	3
Joanna	$2\frac{1}{2}$	Paul	$3\frac{1}{2}$
Trisha	2	Chun	3
Kobe	3	Kurt	4



Use the data displays to answer the questions.

2. Which length appears most often?

3 inches

3. What is the length of the shortest crayon?

1 inch

4. What is the differences in length between the shortest and longest crayons?

3 inches

Use rounding to decide if the answer is reasonable. Write *yes* or *no*. Then find the answer to see if you were correct.

5. Brianna and Greyson are saving pennies. Brianna has a jar with 348 pennies. Greyson has 395 pennies in his jar. Together they have 653 pennies.

no; 743 pennies

6. Harrison Elementary School has 672 students. There are 313 girls. There are 359 boys in the school.

yes; 359 boys

7. **Stretch Your Thinking** Manuel drives 300 miles to Orlando, Florida. He drives at 50 miles per hour. After driving for two hours, he takes a 15-minute break. Two hours after his first break, he takes a break for 30 minutes. Then he drives for two more hours. Including the two breaks, how long does it take Manuel to drive to Orlando?

6 hours 45 minutes

## Homework

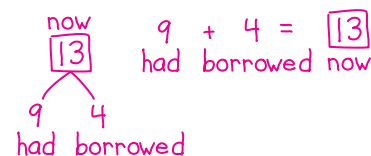
Draw a Math Mountain and write an equation to solve each problem.

Show your work.

Sample work.

1. **Add To** Kelsey had 9 books. She borrowed 4 more books from her friend. How many books does Kelsey have now?

13 books



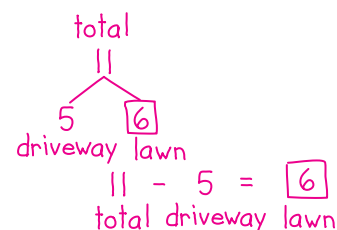
2. **Take From** Write a subtraction problem that undoes the addition word problem in Problem 1. Then draw a Math Mountain, write an equation, and solve the problem.

Possible answer: Kelsey had 13 books. She gave 4 to a friend. How many books does Kelsey have now? 9 books



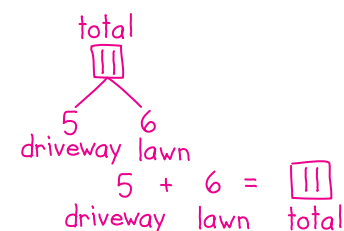
3. **Put Together Take Apart** There are 11 bicycles at Matt's house. 5 are in the driveway, and the rest are on the lawn. How many bicycles are on Matt's lawn?

6 bicycles



4. **Put Together Take Apart** Write an addition word problem that undoes the subtraction word problem in Problem 3. Then draw a Math Mountain, write an equation, and solve the problem you wrote.

Answers will vary. Possible answer: There are 6 bicycles on Matt's lawn and 5 bicycles in the driveway. How many bicycles are at Matt's altogether? 11 bicycles



Write a number to make each number sentence true.

Any number  
except 5

5.  $17 = \boxed{9} + 8$

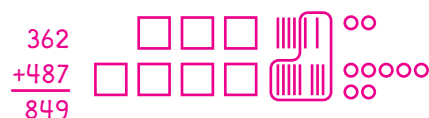
6.  $\boxed{\phantom{0}} \neq 9 - 4$

7.  $5 + 3 = 3 + \boxed{5}$

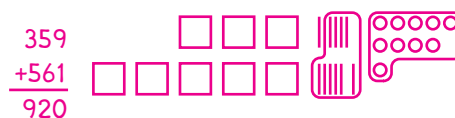
# Remembering

Solve using a numerical method and a proof drawing.

1.  $362 + 487 = \underline{849}$



2.  $359 + 561 = \underline{920}$



Subtract. Show your ungroupings. Use proof drawings if you need to.

3. 
$$\begin{array}{r} 600 \\ - 58 \\ \hline 542 \end{array}$$

4. 
$$\begin{array}{r} 900 \\ - 622 \\ \hline 278 \end{array}$$

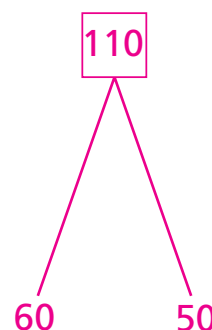
5. 
$$\begin{array}{r} 800 \\ - 316 \\ \hline 484 \end{array}$$

Estimate the length of the line segment in inches.  
Then measure it to the nearest  $\frac{1}{2}$  inch.



Estimate: Answers will vary. Actual:  $4\frac{1}{2}$

7. **Stretch Your Thinking** Emma knows a certain problem has addends of 60 and 50. Draw a Math Mountain using the addends to find the unknown number.





**Homework**

**Solve each problem. Label your answers.**

*Show your work.*

1. Asha made 15 sandwiches. Six were cheese, and the rest were peanut butter. How many peanut butter sandwiches did Asha make?

9 peanut butter sandwiches

2. Farrah has 13 CDs. She gave some of them to her sister. Now Farrah has 5 CDs. How many did she give to her sister?

8 CDs

3. Joseph did 7 push-ups yesterday. Today he did some more. In all, he has done 14 push-ups. How many did he do today?

7 pushups

4. Devon's album contains 40 digital photos. There are 10 pages with an equal number of photos on each page. How many photos are on each page?

4 photos

5. Brent has 81 miniature cars in his collection. There are 9 cars in each box. How many boxes of cars are there?

9 boxes

6. **Create and Solve** Write and solve a word problem in which you must find an unknown addend or factor.

Answers will vary.

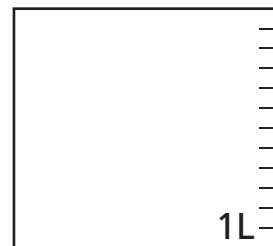
**Check student's work.**

# Remembering

Use drawings to represent the problems.

1. Natalie puts the stopper in the sink and pours in 8 liters of water. Then she pours in 3 more liters. How many liters of water are in the sink now?

11 liters



2. Jack has a bottle with 700 milliliters of juice. He drinks 400 milliliters. How much juice is left in the bottle?

300 milliliters



Write the number for the words.

3. one hundred forty-six 146

4. ninety-three 93

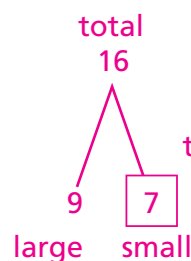
5. four hundred twelve 412

6. sixty 60

Draw a Math Mountain and write an equation to solve each problem.

7. **Take From** There are 16 plates on the table. Nine are large, and the rest are small. How many small plates are on the table?

7 small plates



Show Your Work.  
Sample work.

$$16 - 9 = \boxed{7}$$

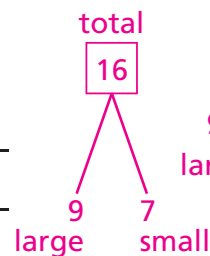
total      large      small

8. **Add To** Write an addition word problem that undoes the subtraction word problem in Problem 7. Then draw a Math Mountain, write an equation, and solve the problem you wrote.

Answers will vary. Possible answer: There are

9 large plates and 7 small plates on the table.

How many plates are on the table? 16 plates



$$9 + 7 = \boxed{16}$$

large      small      total

9. **Stretch Your Thinking** When I'm with my factor 5, my product is 20. When I'm with my addend 6, my sum is 10. What number am I? Explain.

The number is 4.  $4 \times 5 = 20$  and  $4 + 6 = 10$ .

**Homework**

**Solve each problem. Label your answers.**

*Show your work.*

1. Brenna saw some cows at a farm. Then she saw 16 horses. She saw 35 cows and horses in all. How many cows did Brenna see?

19 cows

2. Jamal caught some lightning bugs. His friend gave him 13 more. Now he has 29 lightning bugs. How many did he catch?

16 lightning bugs

3. Anu is eating grapes. She has eaten 14 of them. She has 18 grapes left. How many grapes did she start with?

32 grapes

4. Jay planted 49 lavender plants in his garden. The plants are in equal rows of 7 plants. How many rows of lavender plants are there?

7 rows

5. Marci has 35 inches of trim to glue onto 7 sticker albums. She is putting the same amount of trim on each album. How many inches of trim is she putting on each album?

5 inches

6. **Create and Solve** Write and solve an unknown start or an unknown factor word problem of your own.

Answers will vary.

**Check student's work.**

**Remembering****Solve.***Show Your Work.*

1. Kameryon buys an apple with a mass of 182 grams. She eats some of the apple. Now the apple has a mass of 48 grams. What is the mass of the amount she ate?

134 grams

2. The total mass of the team's 6 bowling balls is 36 kilograms. If each ball has the same mass, what is the mass of each bowling ball?

6 kilograms

**Round each number to the nearest hundred.**

3. 438 400

4. 649 600

5. 251 300

**Solve each problem. Label your answers.***Show Your Work*

6. There are 12 basketballs in the team bag. Seven of the balls are new, and the rest are old. How many old basketballs are in the bag?

Check student's work.

5 old basketballs

7. Riley has 72 stickers. She has 9 sticker sheets. Each sticker sheet has the same number of stickers. How many stickers are on each sheet?

8 stickers

8. **Stretch Your Thinking** Write a word problem using the numbers 9 and 6 and an unknown start number. Write a situation equation and a solution equation to solve your word problem.

Possible answer: Wyatt has some pencils. He buys

6 more and now he has 9 pencils. How many pencils did

he have to start with?  $p + 6 = 9$ ;  $9 - 6 = p$ ;  $p = 3$ ; 3 pencils

**Homework**

Compare the numbers. Write  $>$ ,  $<$ , or  $=$  in each  $\bigcirc$ .

1.  $765 \bigcirc 756$

2.  $467 \bigcirc 758$

3.  $2,014 \bigcirc 2,410$

4.  $8,462 \bigcirc 8,462$

Write the numbers in order from least to greatest.

5. 92, 78, 82

6. 496, 424, 485

78, 82, 92424, 485, 496

Solve each problem. Label your answers.

*Show your work.*

- 7. Unknown Smaller Amount** Will ate 8 fewer crackers than Louis. Louis ate 24 crackers. How many crackers did Will eat?

Check student's work.

16 crackers

- 8. Unknown Larger Amount** Zoe walks 9 more blocks than Raj. Raj walks 12 blocks to school. How many blocks does Zoe walk?

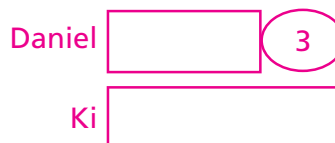
21 blocks

Draw and label Comparison Bars to show each situation.

- 9.** Travis has 7 fewer CDs than Bobbi has.



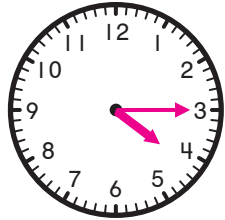
- 10.** Ki solved 3 more math problems than Daniel solved.



# Remembering

Draw the hands on the analog clock. Write the time on the digital clock.

1. four fifteen



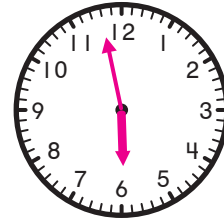
4:15

2. two forty-five



2:45

3. two minutes before six

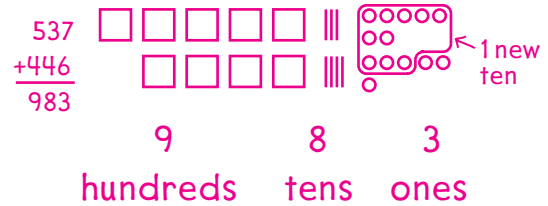


5:58

Solve the problem using a numerical method and a proof drawing.

4. Makayla scores 537 points on the video game. Steven scores 446 points. How many points do they score altogether?

983 points



Solve the problem. Label your answers.

5. Mariah has some toy horses. 18 of her toy horses are brown. The other toy horses are not brown. She has 39 toy horses in all. How many toy horses are not brown?

21 toy horses

6. **Stretch Your Thinking** Use the digits 9, 4, 2 to write comparisons.

Check student's work.  
Possible answers shown.

$$\begin{array}{rcl} 94 & > & 92 \\ 429 & > & 249 \\ 942 & > & 924 \end{array}$$

$$\begin{array}{rcl} 49 & < & 92 \\ 429 & < & 492 \\ 24 & < & 29 \end{array}$$

$$\begin{array}{rcl} 94 & = & 94 \\ 294 & = & 294 \\ 492 & = & 492 \end{array}$$

**Homework****Solve each problem. Label your answers.***Show your work.*

1. Lucia drew 13 pictures. Lucia drew 6 more pictures than Chelsea. How many pictures did Chelsea draw?

7 pictures

2. Derek brought 15 cupcakes to the party. After he gave one to each guest, he had 6 left. How many guests were at the party?

9 guests

3. Molly hit 6 home runs. Molly hit 3 fewer home runs than Jerry. How many home runs did Jerry hit?

9 home runs

4. John caught 4 fireflies. He caught 6 fewer fireflies than Jessica. How many fireflies did Jessica catch?

10 fireflies

5. Ankur ate 9 raisins. He ate 4 fewer raisins than Lena. How many raisins did Lena eat?

13 raisins

6. Amelia made 11 baskets. She made 3 more baskets than Girard. How many baskets did Girard make?

8 baskets

7. Roberto did 15 sit-ups. He did 5 fewer sit-ups than Marcus. How many sit-ups did Marcus do?

20 sit-ups

# Remembering

Complete the table.

1.	Start Time	Elapsed Time	End Time
	4:38	2 hours 12 minutes	6:50
	10:15	1 hour 17 minutes	11:32
	2:45	4 hours 51 minutes	7:36

Use the table to answer Exercises 2–3.

## Items in the Media Center

Type of Item	Number
Nonfiction Books	458
Fiction Books	527
Magazines	291

Write an equation and solve the problem.

Show Your Work.

2. How many nonfiction books and magazines are there altogether?

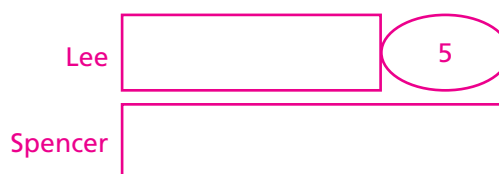
$$749; 458 + 291 = n, n = 749$$

3. The number of which two items rounds to the same number?

$$\text{Nonfiction and Fiction; } 500 = 500$$

Draw and label Comparison Bars to show each situation.

4. Spencer has 5 more markers than Lee has.



5. **Stretch Your Thinking** Write and solve a word problem with an unknown larger amount.

Answers will vary. Possible answer: Destiny has

24 paints. She has 6 fewer paints than Sara.

How many paints does Sara have? 30 paints



**Homework**

**Read each problem. Cross out any extra information or circle the hidden information. Then solve.**

*Show your work.*

1. Galen had 75 toy cars ~~and 98 building blocks~~. He gave 32 toy cars ~~and 14 blocks~~ to his little brother. How many toy cars does Galen have left?

43 toy cars

2. Isabelle baked a dozen muffins. Her family ate 5 of them. How many muffins does Isabelle have left?

7 muffins

3. Guy ran 6 miles on Monday. ~~He biked 13 miles~~. Then he ran 7 miles ~~and biked 10 miles~~ on Friday. How many miles did Guy run this week?

13 miles

**If more information is needed, rewrite the problem to include the necessary information. Then solve it.**

4. A stepladder is 8 feet tall. Two of the steps are broken. How many steps are not broken?

A stepladder is 8 feet tall. There are eight steps.

Two of the steps are broken. How many steps are not broken? 6 steps

5. Today, Maggie's Cafe sold more hot chocolate than yesterday. Yesterday, Maggie's Cafe sold 237 cups of hot chocolate. How many more cups were sold today than yesterday?

Today, Maggie's Cafe sold more hot chocolate than yesterday. Today, they sold 265 cups of hot chocolate.

Yesterday, they sold 237 cups of hot chocolate. How many more cups were sold today than yesterday?

28 more cups

# Remembering

Multiply or divide.

$$\begin{array}{r} 1. \quad 5 \\ \times 6 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$$

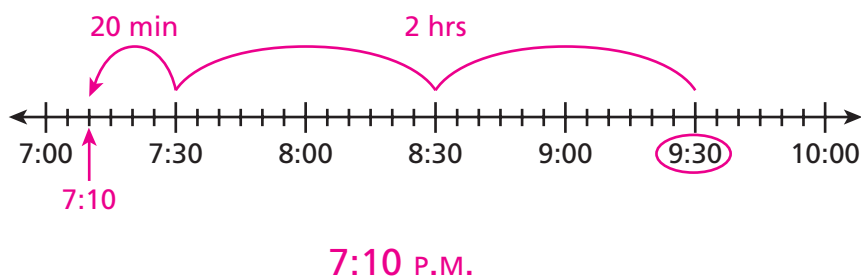
$$\frac{63}{9} = \underline{7}$$

$$\frac{16}{2} = \underline{8}$$

$$\frac{27}{3} = \underline{9}$$

Solve.

2. Justin's recital finishes at 9:30 P.M. The recital lasts 2 hours and 20 minutes. At what time did Justin's recital begin?



Solve each problem. Label your answers.

*Show your work.*

3. Jessica has 7 crackers. She has 6 fewer crackers than Hunter. How many crackers does Hunter have?

13 crackers

4. Austin reads 8 books. He reads 4 more books than Emily. How many books does Emily read?

4 books

5. **Stretch Your Thinking** Write and solve a word problem that has both extra and hidden information. Cross off the extra information and circle the hidden information.

Answers will vary. Sample answer: Mrs. Sanchez

bakes a dozen cookies for her three ~~4-year-old~~

nephews. If she gives each child the same number

of cookies, how many will each child get? 4 cookies

**Homework**

**Write the first step question and answer. Then solve the problem.**

1. The parking garage has 9 rows with 10 parking spaces in each row. There are 8 empty spaces.  
How many spaces are filled?  
How many parking spaces are in the garage? 90 spaces;  
82 spaces
2. Leland bought 3 packs of trading cards with 8 cards in each pack. He divided the cards equally among his 4 friends. How many cards did each friend get?  
How many cards did Leland buy? 24 cards;  
6 cards
3. Sara made 20 necklaces. She kept 2 necklaces and divided the rest equally among 6 friends. How many necklaces did each friend get?  
How many necklaces did Sara give away? 18 necklaces;  
3 necklaces
4. Lori took 36 pictures and Tim took 28 more pictures than Lori. Tim put 8 pictures on each page in his album. How many pages did Tim fill in his album?  
How many pictures did Tim take? 64 pictures;  
8 pages
5. Maria bought 7 packages of balloons. Each package has 8 balloons. She used 49 balloons in bouquets. How many balloons does Maria have left?  
How many balloons did Maria buy? 56 balloons;  
7 balloons

# Remembering

Multiply or divide to find the unknown numbers.

1.  $5 \cdot 8 = \underline{40}$

2.  $4 \times \underline{4} = 16$

3.  $45 \div 9 = \underline{5}$

4.  $20 \div 2 = \underline{10}$

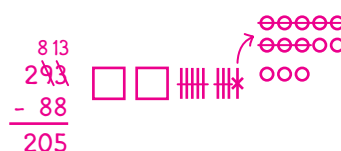
5.  $3 \cdot \underline{6} = 18$

6.  $15 \div 3 = \underline{5}$

Make a proof drawing and subtract numerically.  
Show your ungroupings.

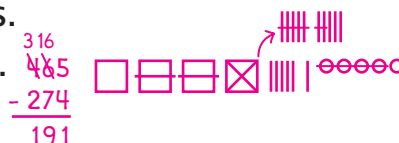
7. Chloe's class has 293 raffle tickets to sell. By the end of the first week they sold 88 tickets. How many tickets does the class have left to sell?

205 tickets



8. The clown has 465 souvenirs to sell for the circus. By the end of the day he had sold 274 souvenirs. How many souvenirs does the clown have left?

191 souvenirs



Read each problem. Cross out any extra information or circle the hidden information. Then solve.

9. In P.E. class Julie does 28 jumping jacks ~~and 51 sit-ups~~. At recess Julie does 37 jumping jacks. How many jumping jacks does Julie do?

65 jumping jacks

10. **Stretch Your Thinking** Write and solve a word problem that uses the factors 6 and 9 and has extra information about grams.

Answers will vary. Possible answer: Lana bakes

6 trays of muffins. There are 9 muffins in each

tray. Each muffin has a mass of 70 grams.

How many muffins does Lana bake? 54 muffins

**Homework****Solve each problem. Label your answers.***Show your work.*

1. Todd's dad cut 12 slices of mango. Todd ate 4 of them. Then Todd's mom cut 6 more slices. How many slices of mango were left?

14 slices

---

2. Jennifer picked 3 daffodils, 9 daisies, and some tulips for her mother. Altogether she picked 16 flowers. How many tulips did she pick?

4 tulips

---

3. Alex has 14 books in his bag. Angela has 6 fewer books in her bag than Alex has. How many books are in the two bags altogether?

22 books

---

4. Pedro had 13 marbles yesterday. 7 were red, and the rest were green. Today he gave 4 of his green marbles to his sister. How many green marbles does Pedro have left?

2 green marbles

---

5. There were 17 animals at the shelter. 8 were dogs, and the rest were cats. Today more cats were brought in. Now there are 11 cats. How many cats were brought to the shelter today?

2 cats

---

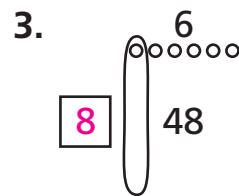
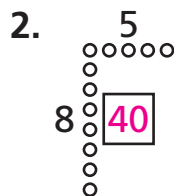
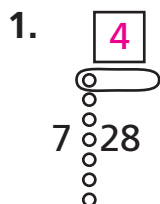
6. Zal picked 12 cherries from one tree and 3 from another. He picked 8 more cherries than Karen picked. How many cherries did Karen pick?

7 cherries

---

# Remembering

Find the unknown number in the Fast Array drawing.



Read the problem. Then follow the directions below the problem. Here is an addition word problem:

In the stands at the football game, there are 259 people sitting. There are also 183 people standing. How many people are in the stands?

4. Solve the problem. 442 people

Write the first step question and answer. Then solve the problem.

5. The store owner gets a shipment of 7 boxes of games. There are 6 games in each box. He sells 18 games. How many games are left?  
How many games are in the shipment? 42 games;  
24 games

6. **Stretch Your Thinking** Write a two-step word problem that has an answer of 7 pages.  
Answers will vary. Possible answer: Ryan has  
55 stickers. He buys 8 more stickers. Then he  
puts 9 stickers on each page in his sticker  
book. How many pages does he fill?

**Homework**

This table shows the number of tickets sold for the early and late showings of each movie at the Palace Theater last Saturday.

**Saturday Ticket Sales**

	<i>Jungle Adventure</i>	<i>Hannah the Hero</i>	<i>Space Race</i>
Early Show	72	109	143
Late Show	126	251	167

1. How many more tickets were sold for the early showing of *Jungle Adventure* and *Hannah the Hero* than for *Space Race*?

38 tickets;  $72 + 109 - 143 = n$ ,  $n = 38$

2. How many tickets were sold for the late showing of the three movies?

544 tickets;  $126 + 251 + 167 = n$ ,  $n = 544$

This table shows the number of pizza, pasta, and salad orders at Luigi's Pizzeria last Tuesday, Wednesday, and Thursday.

**Orders at Luigi's Pizzeria**

	<b>Pizza</b>	<b>Pasta</b>	<b>Salads</b>
Tuesday	45	27	18
Wednesday	51	65	29
Thursday	64	78	38

3. Write a two step question based on the table above, and then find the answer.

Answers will vary. Possible question: How

many more orders of pizza were taken on

Tuesday and Wednesday than on Thursday?

32 pizzas;  $45 + 51 - 64 = n$ ,  $n = 32$

## Remembering

Write an equation and solve the problem.

Equations and letters for variables may vary. Samples are given.

- |   |   |
|---|---|
| 1. Joey counts the windows on the 3-floor building. There are 6 windows on each floor. How many windows does he count?<br><u><math>3 \times 6 = w</math>; <math>w = 18</math>; 18 windows</u> | 2. Kiara gives Mrs. King's class 23 erasers. She has 59 erasers left in the supply drawer. How many erasers did Kiara start with?<br><u><math>e = 59 + 23</math>, <math>e = 82</math>; 82 erasers</u> |
|---|---|

Solve the problem.

3. Seth earns 783 points in a video game. He loses 250 points. What is his score now?  
533 points

Solve each problem. Label your answers.

*Show your work.*

4. Rene has 15 pens. Nine are blue and the rest are red. Her brother gives her some more red pens. Now she has 11 red pens. How many red pens did her brother give her?  
5 red pens

5. Blake has 6 fish in his tank. His dad buys him 3 more. Now he has 4 fewer fish than Vanessa. How many fish does Vanessa have?  
13 fish

6. **Stretch Your Thinking** Write and solve a two step word problem that uses subtraction and then addition.

Use these numbers in any order: 148, 302, 480

Answers will vary. Sample answer: The baker

makes 302 muffins. He sells 148 muffins. Then

he puts out 480 fresh muffins. How many

muffins does he have now?

$302 - 148 + 480 = 634$ ; 634 muffins



**Homework****Write an equation and solve the problem.***Show your work.*

1. There is a stack of sweaters at the store.

Six sweaters have 5 buttons each. One sweater has 4 buttons. How many buttons do the sweaters have altogether?

**34 buttons;  $6 \times 5 + 4 = n, n = 34$**

---

**Sample equations are given.**

2. Paula had 60 party treats. She gave 4 away. Then she put an equal number in each of 8 bags. How many treats did she put in each bag?

**7 treats;  $(60 - 4) \div 8 = n, n = 7$**

---

3. Andy's soccer team scored 5 goals in each of 7 games and 6 goals in another game. How many goals did Andy's team score?

**41 goals;  $7 \times 5 + 6 = n, n = 41$**

---

4. One week, Jon walked 20 minutes each day for 6 days. Then he walked 30 minutes the next day. How many minutes did Jon walk that week?

**150 minutes;  $6 \times 20 + 30 = n, n = 150$**

---

5. Tanisha played bean bag toss. She hit the 100-point target once and the 50-point target 3 times. How many points did Tanisha score?

**250 points;  $100 + 3 \times 50 = n, n = 250$**

---

6. Charles received \$15 for doing chores and \$22 for his birthday. He spent \$9 on a book. How much money does Charles have left?

**\$28;  $15 + 22 - 9 = n, n = 28$**

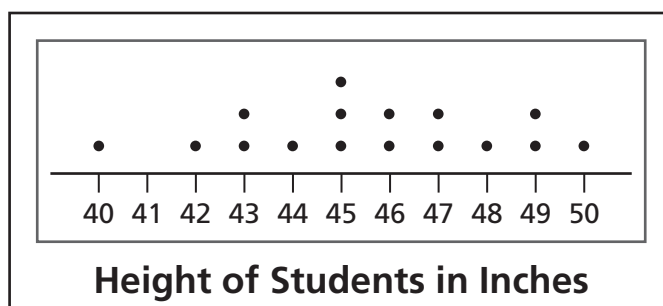
---

# Remembering

Use the line plot to solve the problem.

1. How many students are 47 inches or taller?

6 students



The table below shows the number of people that went on each ride on Sunday morning and afternoon.

People on the Rides

	Twister	Roller Coaster	Merry-Go-Round
Morning	84	285	136
Afternoon	149	251	95

Write an equation and solve the problem.

2. How many more riders are there in the morning for the twister and roller coaster than the merry-go-round?

233 riders;  $84 + 285 - 136 = n$ ,  $n = 233$

3. How many more riders are there in the entire day for the merry-go-round than riders in the afternoon for the twister?

82 riders;  $136 + 95 - 149 = n$ ,  $n = 82$

4. **Stretch Your Thinking** Write a two-step word problem using this equation:  $72 \div 9 + 6 = b$ ,  $b = 14$   
Answers will vary. Possible answer: There are 72 books on 9 shelves. Each shelf has the same number of books. Six new books are placed on the top shelf. How many books are on the top shelf now? 14 books

## Homework

**Bobcats Will Play Eagles in their Final Game**

*The Bobcats have set some records this season.*

	Touchdowns	Yards	Total points
Bobcats	23	341	160



The Bobcats will play the Eagles in their final game. The table below shows some records set by the Bobcats during the football season.

	Touchdowns	Yards	Total Points
Bobcats	23	341	160

**Write an equation and solve the problem.**

1. The Eagles scored 7 fewer touchdowns than the Bobcats. How many touchdowns did the two teams score altogether?

39 touchdowns;  $23 + (23 - 7) = n$ ,  $n = 39$

2. The Bobcats scored 133 points on touchdowns. They scored the rest of their points by kicking field goals worth 3 points each. How many field goals did the Bobcats kick?

9 field goals;  $(160 - 133) \div 3 = n$ ,  $n = 9$

3. Use the data in the table to write another two step problem.

Answers will vary. Possible answer: The two teams had a total of

622 yards. The Bobcats had 60 more yards than the Eagles. How many yards did the Eagles have?

# Remembering

Use basic multiplication and mental math to complete.

1.  $7 \times 4 = \underline{28}$

2.  $6 \times 3 = \underline{18}$

3.  $5 \times 9 = \underline{45}$

$7 \times 40 = \underline{280}$

$60 \times 3 = \underline{180}$

$5 \times 90 = \underline{450}$

4.  $70 \times 5 = \underline{350}$

5.  $60 \times 9 = \underline{540}$

6.  $50 \times 6 = \underline{300}$

Multiply or divide to find the unknown numbers.

7.  $72 = 8 \times \underline{9}$

8.  $7 = \underline{56} \div 8$

9.  $\underline{5} \times 6 = 30$

10.  $4 \times 6 = \underline{24}$

11.  $27 = \underline{9} \times 3$

12.  $25 \div 5 = \underline{5}$

Write an equation and solve the problem.

*Show your work.*

13. Mrs. Blum makes 8 fruit baskets with 4 apples in each. She makes 1 fruit basket with 3 apples. How many apples does she use altogether?

Sample equations are given.

35 apples;  $8 \times 4 + 3 = n$ ,  $n = 35$

14. Coach Ruiz buys one package of 50 cups and 4 packages of 20 cups. How many cups does Coach Ruiz buy altogether?

130 cups;  $50 + 4 \times 20 = n$ ,  $n = 130$

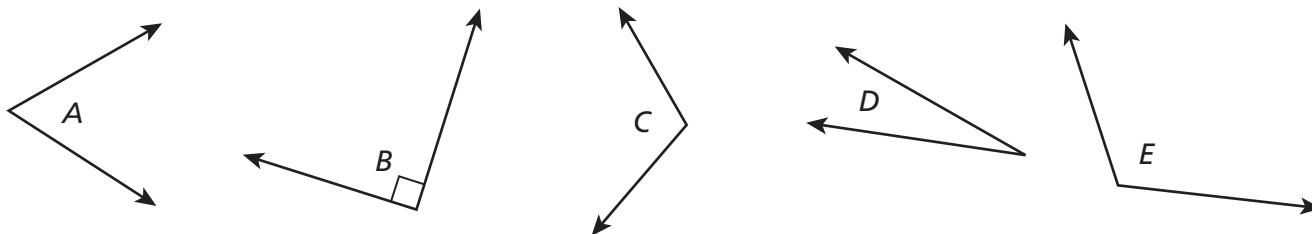
15. **Stretch Your Thinking** Use the table to write and solve a two step word problem that has an answer of 49 points.

	Carly	Evan	Isaac
Points	245	118	176

Answers will vary. Possible answer: How many fewer points does Carly score than Evan and Isaac score together?  $118 + 176 - 245 = 49$  points

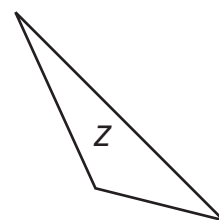
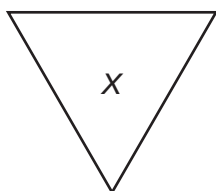
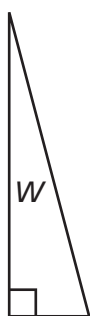
## Homework

Look at the angles below.



1. Which angles are right angles? B
2. Which angles are larger than a right angle? C and E
3. Which angles are smaller than a right angle? A and D

Use the triangles for 4–7. Write *W*, *X*, *Y*, or *Z*. Then complete the sentences.



4. Triangle X has 3 angles smaller than a right angle and 3 sides of equal length.
5. Triangle Z has 1 angle larger than a right angle and 0 sides of equal length.
6. Triangle W has 1 right angle and 0 sides of equal length.
7. Triangle Y has 3 angles smaller than a right angle and 2 sides of equal length.

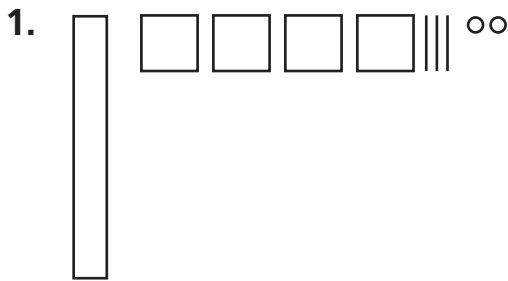
Draw an example of each figure described below.

Then name the figure. *Check students' drawings.*

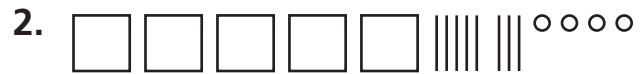
8. a polygon with 6 sides and 6 angles hexagon
9. a polygon with 4 sides and 4 angles quadrilateral
10. a polygon with 8 sides and 8 angles octagon

# Remembering

Write the number for each place value drawing.



1,432



584

Write the number.

3.  $600 + 30 + 8 =$  638

4.  $200 + 50 + 1 =$  251

5. 8 hundreds + 7 ones = 807

6. 2 thousands + 2 tens + 4 ones = 2,024

Solve each problem. Label your answer.

There are 147 third grade students going to the theater. Each row at the theater has ten seats.

7. How many rows of seats will the third grade students fill?

14 rows

8. How many students will be seated in a row that isn't filled?

7 students

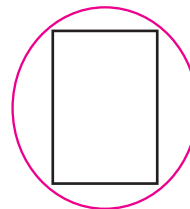
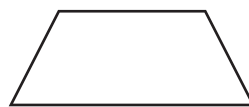
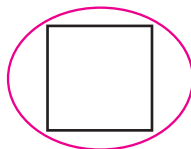
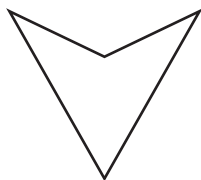
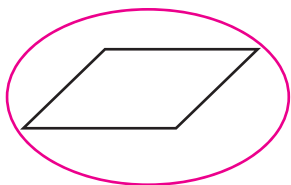
9. **Stretch Your Thinking** Draw a right angle triangle with 0 sides of equal length.

Check students' drawings. Possible drawing shown.



**Homework**

1. Circle the figures that are parallelograms.



Read each sentence and write whether it is *true* or *false*.

2. All squares are rectangles. true

3. All parallelograms are squares. false

4. All quadrilaterals are parallelograms. false

5. The opposite sides of a square are always parallel.  
true

Circle all the words that describe the figure.

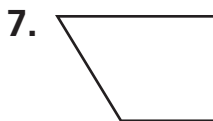


square

rectangle

parallelogram

quadrilateral



parallelogram

quadrilateral

rectangle

trapezoid



rectangle

parallelogram

quadrilateral

rhombus

# Remembering

Round each number to the nearest hundred.

1. 554 600

2. 748 700

3. 381 400

Draw a Math Mountain and write an equation to solve each problem.

Show your work.

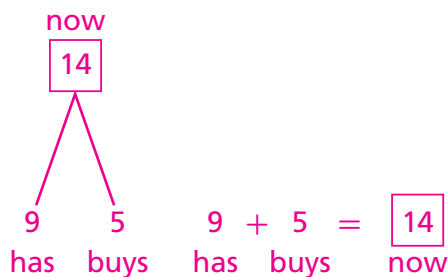
4. **Take Apart** Abby is baking 12 rolls. She makes 8 of them plain. She makes the rest of them with cinnamon. How many rolls have cinnamon?

4 rolls

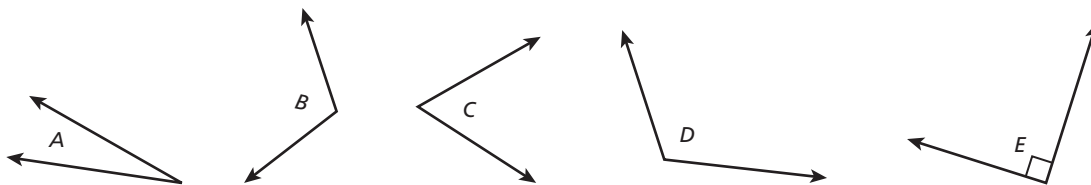


5. **Add To** Danny has 9 CDs. He buys 5 more CDs at a yard sale. How many CDs does Danny have now?

14 CDs



Look at the angles below.



6. Which angles are larger than a right angle? B and D
7. Which angles are smaller than a right angle? A and C
8. Which angles are right angles? E

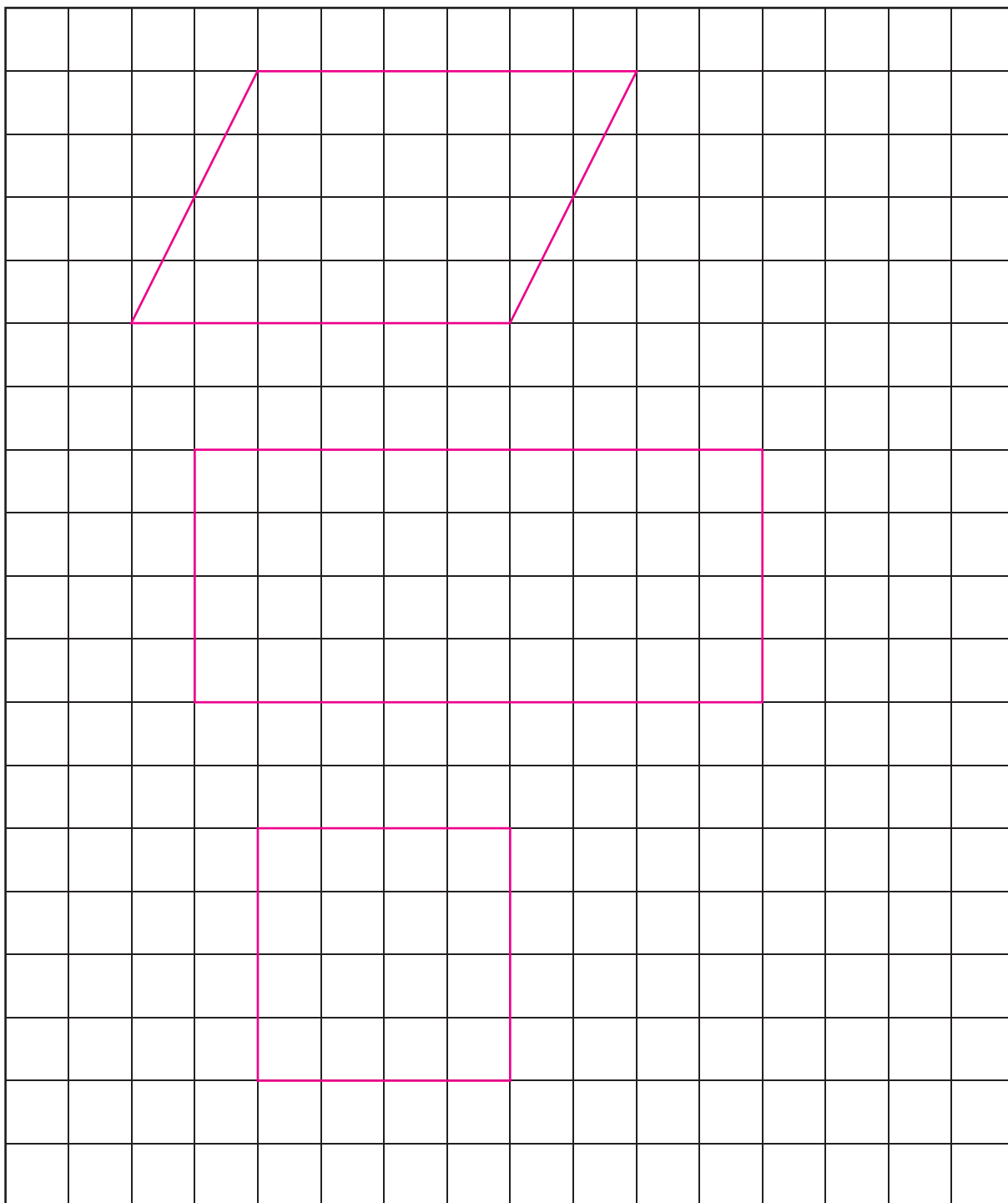
9. **Stretch Your Thinking** Explain how a square is a rectangle.

Possible answer: A rectangle has 2 pairs of sides of equal length and 4 right angles. A square also has 4 right angles. A square is a special rectangle because all the sides are the same length.



**Homework**

1. Draw a parallelogram with no right angles.
2. Draw a parallelogram with right angles.
3. Draw a rectangle with equal side lengths. **Drawings will vary.**



# Remembering

Use rounding to decide if the answer is reasonable.  
Then find the answer to see if you were right.

1.  $136 - 87 = 49$

reasonable; 49

2.  $94 - 56 = 38$

not reasonable; 38

3.  $165 + 28 = 193$

not reasonable; 193

Solve each problem. Label your answers.

*Show your work.*

4. Sierra has 13 stuffed animals. Five of them are polar bears. The rest are penguins. How many penguins does Sierra have?

8 penguins

*Check student's work.*

5. Ben has a CD tower with 54 CDs. There are 6 shelves. Each shelf has an equal number of CDs. How many CDs are on each shelf?

9 CDs

Circle all the words that describe the figure.

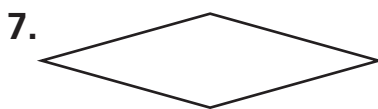


parallelogram

quadrilateral

rectangle

trapezoid

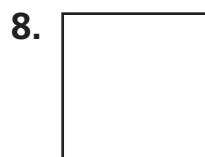


rectangle

parallelogram

quadrilateral

rhombus



square

rectangle

parallelogram

quadrilateral

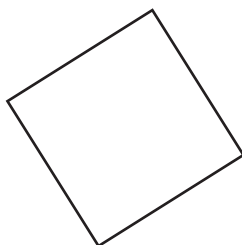
9. **Stretch Your Thinking** Charlotte says her porch is a parallelogram that has four equal sides and no right angles. Draw a shape that matches the description of Charlotte's porch. *Check student's drawings. Drawings should be in the shape of a rhombus.*

## Homework

Circle every name that describes the figure.



1. quadrilateral  
parallelogram  
rectangle  
trapezoid



2. quadrilateral  
parallelogram  
rectangle  
square

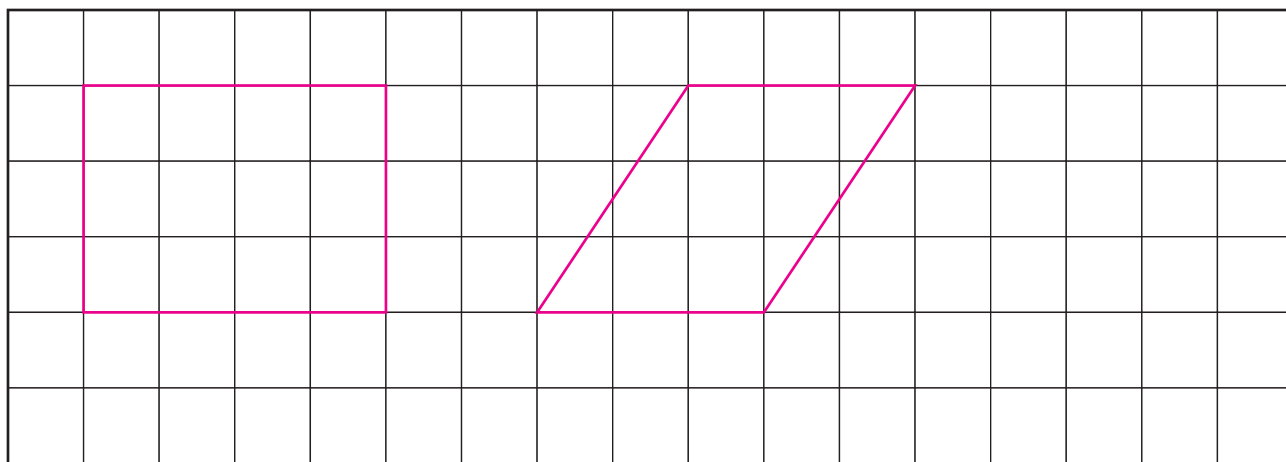


3. quadrilateral  
parallelogram  
rectangle  
square

Draw each figure. Possible drawings are shown.

4. Draw a quadrilateral that is *not* a square.

5. Draw a parallelogram that is *not* a square.



6. Explain why it is not possible to draw a square that is not a parallelogram.

Since all squares have two pairs of opposite sides that are parallel, all squares are parallelograms.

# Remembering

Unscramble the place values and write the number.

1. 4 ones + 6 hundreds 604
2. 2 ones + 3 hundreds + 5 tens 352
3. 8 tens + 9 hundreds 980

Solve each problem. Label your answers.

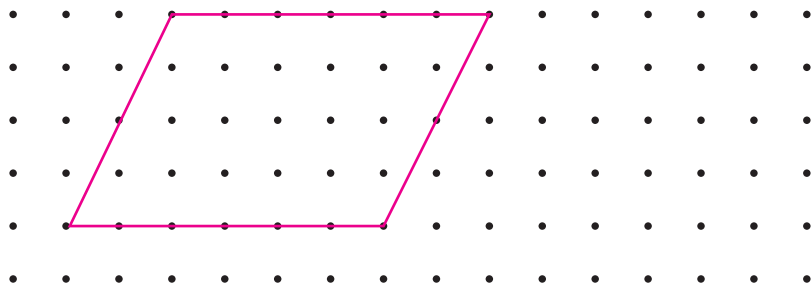
*Show your work.*

4. Autumn has some stickers. She uses 16 of them. Now she has 18 left. How many stickers did she start with?  
34 stickers

**Check student's work.**

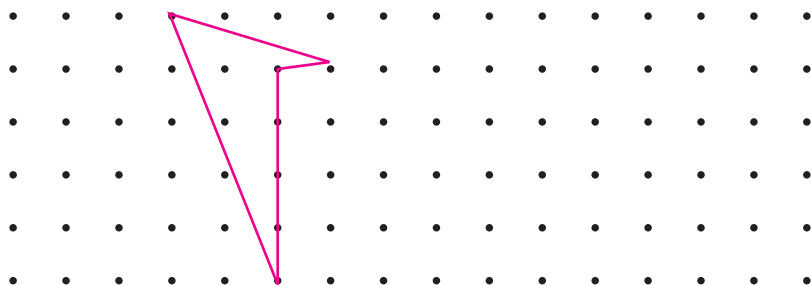
5. Landon owns some video games. His friend owns 19 video games. Together they own 37 video games. How many video games does Landon own?  
18 video games

6. Draw a parallelogram with no right angles. **Drawings will vary.**



7. **Stretch Your Thinking** Draw a quadrilateral with sides that are not equal.

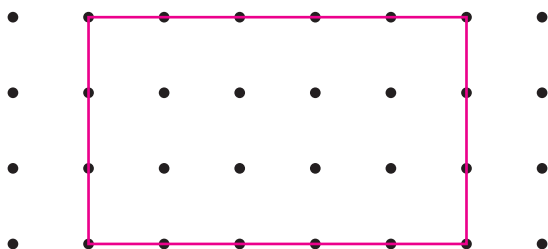
**Check student's drawings.** Drawings should be of a shape with four sides that are not equal in length. Possible drawing shown.



## Homework

Draw each rectangle on the dot paper. Find the perimeter and area.

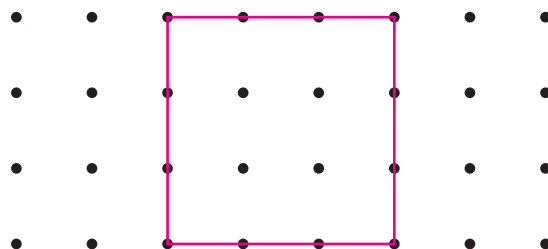
1. A rectangle 5 cm long and 3 cm wide



Perimeter = 16 cm

Area = 15 sq cm

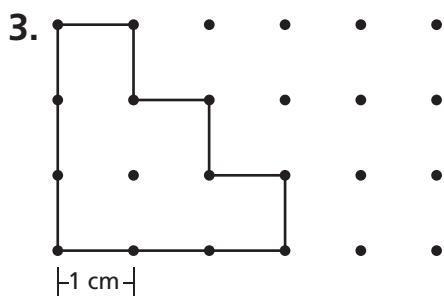
2. A rectangle 3 cm long and 3 cm wide



Perimeter = 12 cm

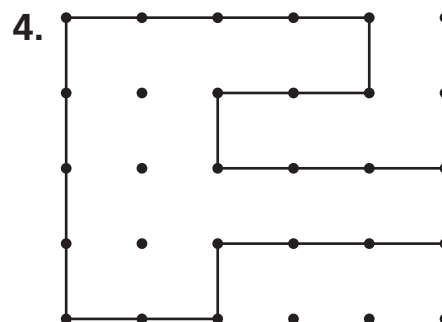
Area = 9 sq cm

Find the perimeter and area of each figure. Remember to include the correct units in your answers.



Perimeter = 12 cm

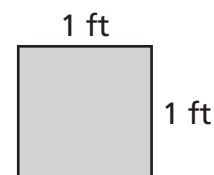
Area = 6 sq cm



Perimeter = 22 cm

Area = 13 sq cm

5. Harvey wants to paint one wall in his room with squares of different colors. He wants the sides of each square to measure 1 foot. He does not want to repeat any color. The wall is 8 feet high and 10 feet long. How many different colors does Harvey need?

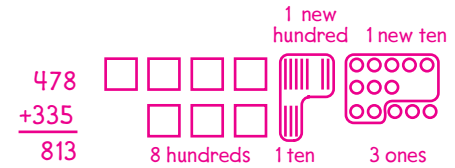


80 different colors

# Remembering

Solve the problem using a numerical method and a proof drawing.

1. The stadium snack bar has 478 cups in the dispenser. The manager opens up a new package, and puts 335 more cups into the dispenser. How many cups are now in the dispenser?



**813 cups**

Draw and label Comparison Bars to show each situation.

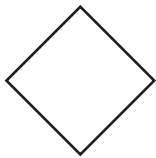
2. Marissa has 4 fewer strawberries than Amy has.



3. Carter has 6 more books than Juliana has.



Circle every name that describes the figure.



4. **quadrilateral**  
**parallelogram**  
**rectangle**  
**square**



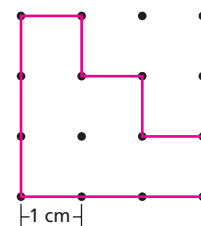
5. **quadrilateral**  
parallelogram  
rectangle  
**trapezoid**



6. **quadrilateral**  
**parallelogram**  
rectangle  
square

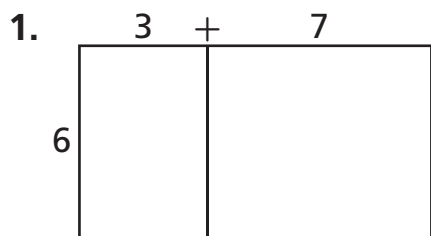
7. **Stretch Your Thinking** Draw a shape that has a perimeter of 12 cm and an area of 6 sq cm.

**Check student's drawing. Possible drawing is shown.**

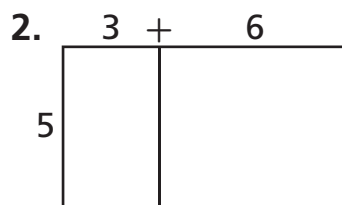


**Homework**

Write an equation for the area of each rectangle.

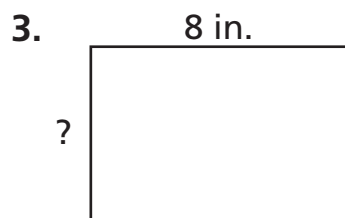


$$(6 \times 3) + (6 \times 7) = 6 \times 10$$

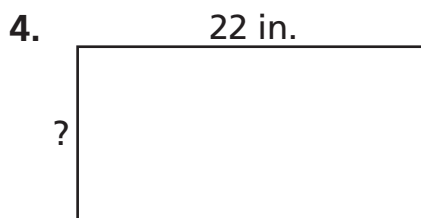


$$(5 \times 3) + (5 \times 6) = 5 \times 9$$

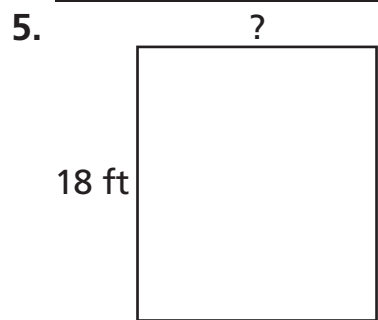
Find the unknown side length in each diagram.



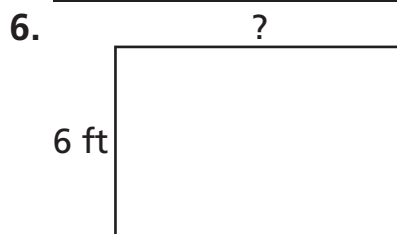
Area = 56 sq in.  
7 in.



Perimeter = 66 in.  
11 in.



Perimeter = 50 ft  
7 ft



Area = 54 sq ft  
9 ft

**Solve.**

7. Sarah is lining a square tray with 1 inch square tiles. The side length of the tray is 9 inches. How many tiles does Sarah need?

81 tiles

8. Mark is gluing a ribbon around the sides of a picture frame. The frame is 11 inches long and 7 inches wide. How much ribbon does Mark need?

36 inches

# Remembering

Add or subtract.

$$\begin{array}{r} 1. \quad 465 \\ + 184 \\ \hline 649 \end{array}$$

$$\begin{array}{r} 2. \quad 579 \\ - 498 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 3. \quad 600 \\ - 285 \\ \hline 315 \end{array}$$

$$\begin{array}{r} 4. \quad 539 \\ + 281 \\ \hline 820 \end{array}$$

Solve each problem. Label your answers.

Show your work.

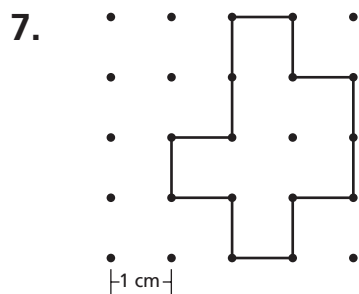
5. Kenzie bakes 9 oatmeal cookies. Kenzie bakes 7 fewer cookies than Lisa. How many oatmeal cookies does Lisa bake?

16 oatmeal cookies

6. Hayden reads 8 books over the summer. He reads 5 more books than Max. How many books does Max read?

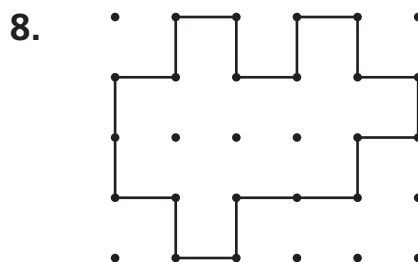
3 books

Find the perimeter and area of each figure. Remember to include the correct units in your answers.



Perimeter = 14 cm

Area = 7 sq cm



Perimeter = 20 cm

Area = 12 sq cm

9. **Stretch Your Thinking** Fill in the unknown numbers. Explain how you solved.

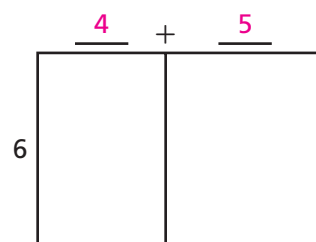
Possible answer: The area is 54 sq cm. The

length times the width equals 54. I know

$54 \div 6 = 9$ , so the numbers on top must

be addends of 9. The line divides the

rectangle near the middle, so I chose 4 and 5.



Area = 54 sq cm



**Homework****Complete.**

1. On a centimeter dot grid, draw all possible rectangles with a perimeter of 16 cm and sides whose lengths are whole centimeters. Label the lengths of two adjacent sides of each rectangle.

Rectangles with Perimeter 16 cm	
Lengths of Two Adjacent Sides	Area
1 cm and 7 cm	7 sq cm
2 cm and 6 cm	12 sq cm
3 cm and 5 cm	15 sq cm
4 cm and 4 cm	16 sq cm

2. Find and label the area of each rectangle. Then complete the table.

3. Compare the shapes of the rectangles with the least and greatest areas.

Possible answer: The rectangle with the least area is long and skinny;  
the rectangle with the greatest area is a square.

4. On a centimeter dot grid, draw all possible rectangles with an area of 16 sq cm and sides whose lengths are whole centimeters. Label the lengths of two adjacent sides of each rectangle.

5. Find and label the perimeter of each rectangle. Then complete the table.

Rectangles with Area 16 sq cm	
Lengths of Two Adjacent Sides	Perimeter
1 cm and 16 cm	34 cm
2 cm and 8 cm	20 cm
4 cm and 4 cm	16 cm

6. Compare the shapes of the rectangles with the least and greatest perimeters.

Possible answer: The rectangle with the least perimeter is a square;  
the rectangle with the greatest perimeter is long and skinny.

# Remembering

## Students in Schools

School	Number
Rivers Elementary	269
Pine Middle School	382
Audubon High School	468

Write an equation and solve the problem.

Show your work.

1. What is the total number of students at Audubon High School and Rivers Elementary?

737 students;  $468 + 269 = n$ ,  $n = 737$

2. The total number of which two schools is about 900 students?

Pine Middle and Audubon High;  $400 + 500 = n$ ,  $n = 900$

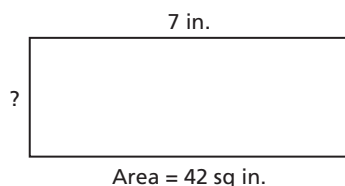
Read the problem. Cross out any extra information or circle the hidden information. Then solve.

3. Brian has 8 rolls in one bag and a dozen in another bag. How many rolls does Brian have?

20 rolls

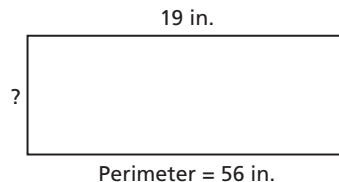
Find the unknown side length in each diagram.

4.



6 in.

5.



9 in.

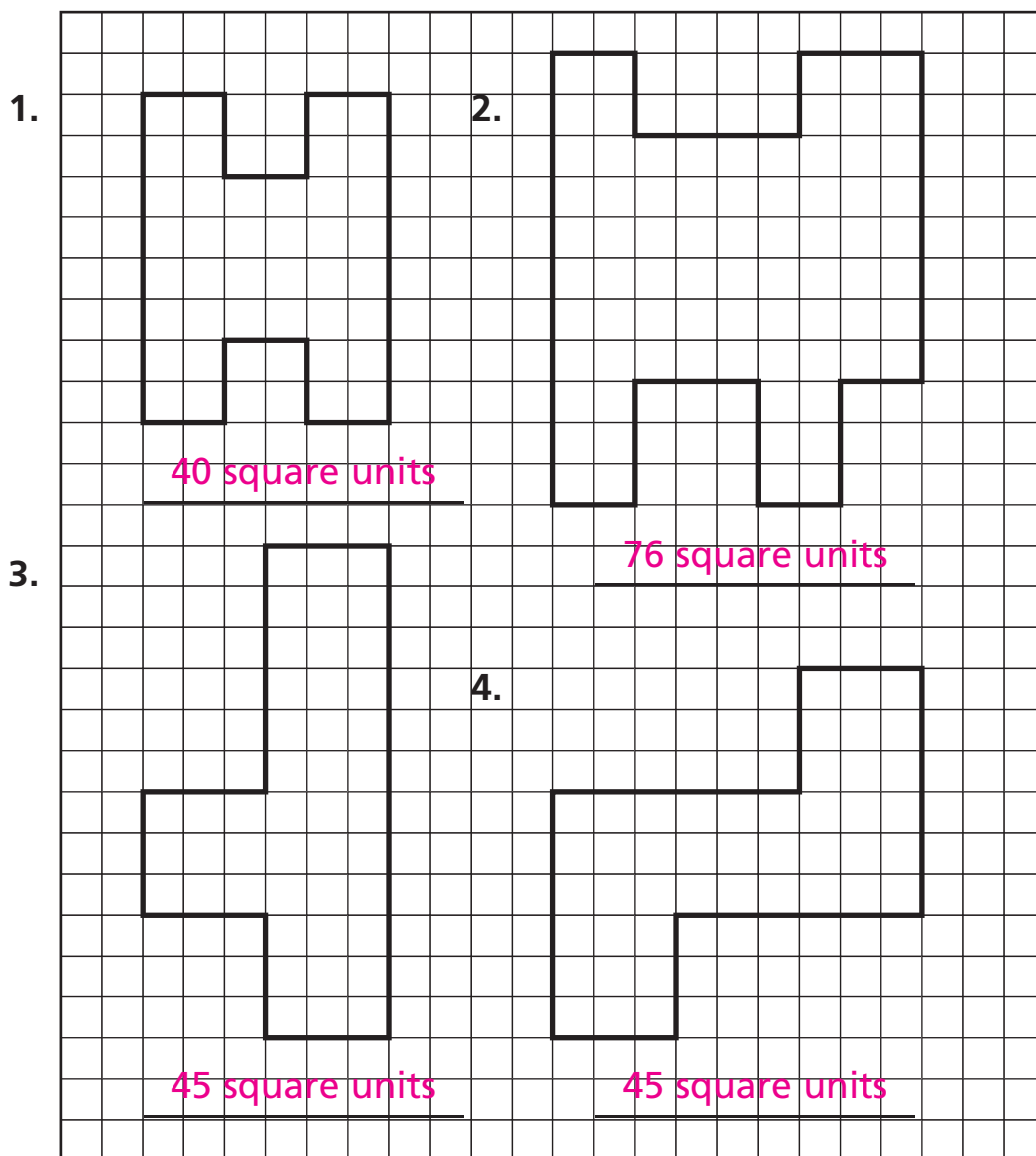
6. **Stretch Your Thinking** Give an example of a square that has the same number for its area and perimeter.

Possible answer: A square with a side length of 4 cm has a perimeter of 16 cm and an area of 16 sq cm.

**Homework**

Decompose each figure into rectangles.

Then find the area of the figure. **Drawings will vary.**



5. Choose one figure from Exercises 1–4. Explain how and why you decomposed it as you did.

**Possible answer:** I decomposed Figure 4 into 5 squares, each with an area of 9 square units, because then I could just multiply  $5 \times 9$  to get the total area.

# Remembering

Make a proof drawing and subtract numerically.  
Show your ungroupings.

1. Mrs. Razaki has 235 programs to hand out at the concert. So far she has handed out 72. How many programs does she have left?

**163 programs**

$$\begin{array}{r} 1\ 13 \\ 235 \\ -72 \\ \hline 163 \end{array}$$

Diagram showing base ten blocks: 2 hundreds, 3 tens, and 5 ones. One hundred is ungrouped into 10 tens. One ten is ungrouped into 10 ones. The final representation shows 1 hundred, 6 tens, and 3 ones.

Write the first step question and answer. Then solve the problem.

2. Dominic puts his cars in 6 rows with 5 in each row. His sister changes them into 3 rows with the same number in each row. How many cars did she put in each row?

**How many cars does Dominic have? 30 cars;**

**10 cars**

Complete.

3. On centimeter dot paper, draw all the possible rectangles with a perimeter of 12 cm and sides whose lengths are whole numbers. Label the lengths of two adjacent sides of each rectangle.

Rectangles with Perimeter 12 cm

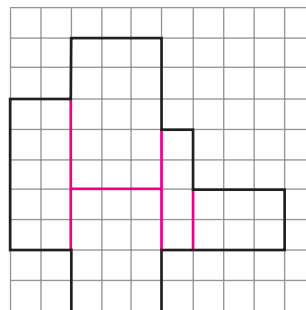
Lengths of Two Adjacent Sides	Area
1 cm and 5 cm	5 sq cm
2 cm and 4 cm	8 sq cm
3 cm and 3 cm	9 sq cm

4. Find and label the area of each rectangle. Then complete the table.

**Check student's drawings.  
Possible drawings shown.**

5. **Stretch Your Thinking** Gwen decomposes the figure into 4 rectangles and 1 square. Draw lines on the figure to show how Gwen decomposed the figure. Then find the area.

**36 sq units**



**Homework**

**Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a diagram to represent each situation.**

*Show your work.*

1. Carl is making a rectangular dog run. He has 36 one-yard sections of fence that he plans to use to keep his dog inside. He wants the run to be as long as possible. What is the longest whole-number length he can use for the run?

Perimeter

Area

Side Length

17 yards long

2. Bob has 37 tiles with dimensions of 1 foot by 1 foot. He wants to tile a closet that is 7 feet long and 5 feet wide. Does he have enough tiles? If so, how many more will be left over?

Perimeter

Area

Side Length

Yes; 2 extra tiles

3. A stage is 10 yards long and 5 yards wide. The orchestra pit in front of the stage is 4 yards long and 2 yards wide. How much floor space do the stage and the orchestra pit take up?

Perimeter

Area

Side Length

58 square yards

4. Tracy embroidered 26 quilt blocks with letters and 10 quilt blocks with numbers. She wants her quilt to have 6 rows. How many quilt blocks will be in each row?

Perimeter

Area

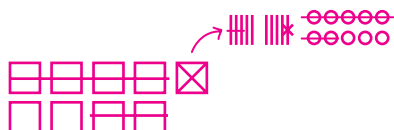
Side Length

6 quilt blocks

# Remembering

Subtract. Show your ungroupings. Use proof drawings if you need to.

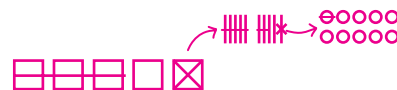
$$\begin{array}{r} 1. \quad 900 \\ - 637 \\ \hline 263 \end{array}$$



$$\begin{array}{r} 2. \quad 400 \\ - 352 \\ \hline 48 \end{array}$$



$$\begin{array}{r} 3. \quad 500 \\ - 371 \\ \hline 129 \end{array}$$



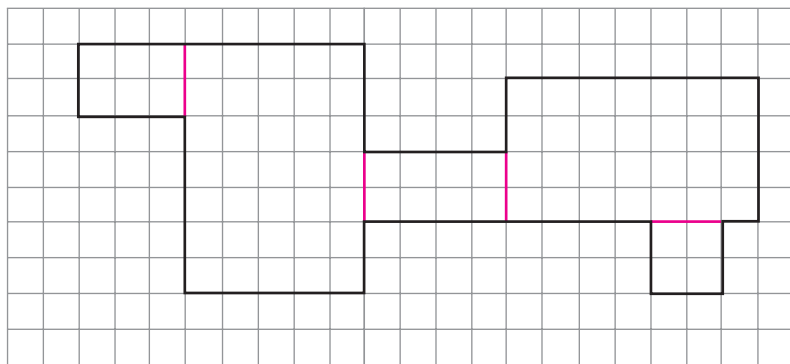
Solve the problem. Label your answers.

4. Emma reads 16 pages of her book. Tom reads 7 fewer pages than Emma. How many pages do they read in all?

25 pages

Decompose the figure into rectangles. Then find the area of the figure. Check students' drawings. Possible drawings shown.

5.



81 square units

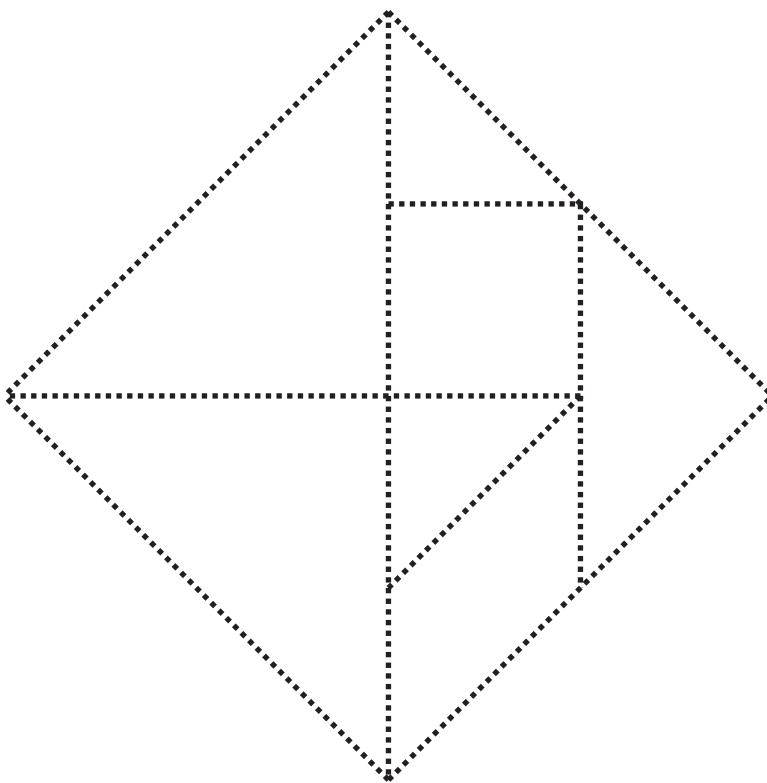
6. **Stretch Your Thinking** Abbie makes two different quilts. Each quilt is a square. However, the quilts have different perimeters and areas. Describe the areas and perimeters the two quilts could have. Possible answers shown.

Quilt 1 25 square inches area 20 inches perimeter

Quilt 2 49 square inches area 28 inches perimeter

**Homework**

1. Color the two large triangles purple.
2. Color the two small triangles green.
3. Color the square, the parallelogram, and the medium triangle blue.
4. Cut out the tangram pieces.
5. Use the pieces to make other tangram shapes.
6. Choose one shape and copy it on a separate sheet of paper.
7. Find the area of the shape you made. Remember, the square is one square inch.



## Remembering

Solve the problem.

1. David buys a package of 375 straws. He uses 182 to build a bridge for a project. How many straws does he have left?

193 straws

The table below shows the number of vehicles in the parking garage on Monday and Tuesday.

Vehicles in the Garage

	Trucks	Cars	SUVs
Monday	49	129	163
Tuesday	68	207	235

Write an equation and solve the problem.

2. How many vehicles in all were parked in the garage on Tuesday?

510 vehicles;  $68 + 207 + 235 = n$ ,  
 $n = 510$

3. How many more trucks and cars combined were parked on Monday than SUVs?

15 more;  $49 + 129 - 163 = n$ ,  
 $n = 15$

Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a diagram to represent the situation.

4. Brian buys a package of 25 one-inch square tiles. He wants to make a mosaic picture 5 inches long and 4 inches wide. Does he have enough tiles? If so, how many more will be left over?

Perimeter

Area

Side Length

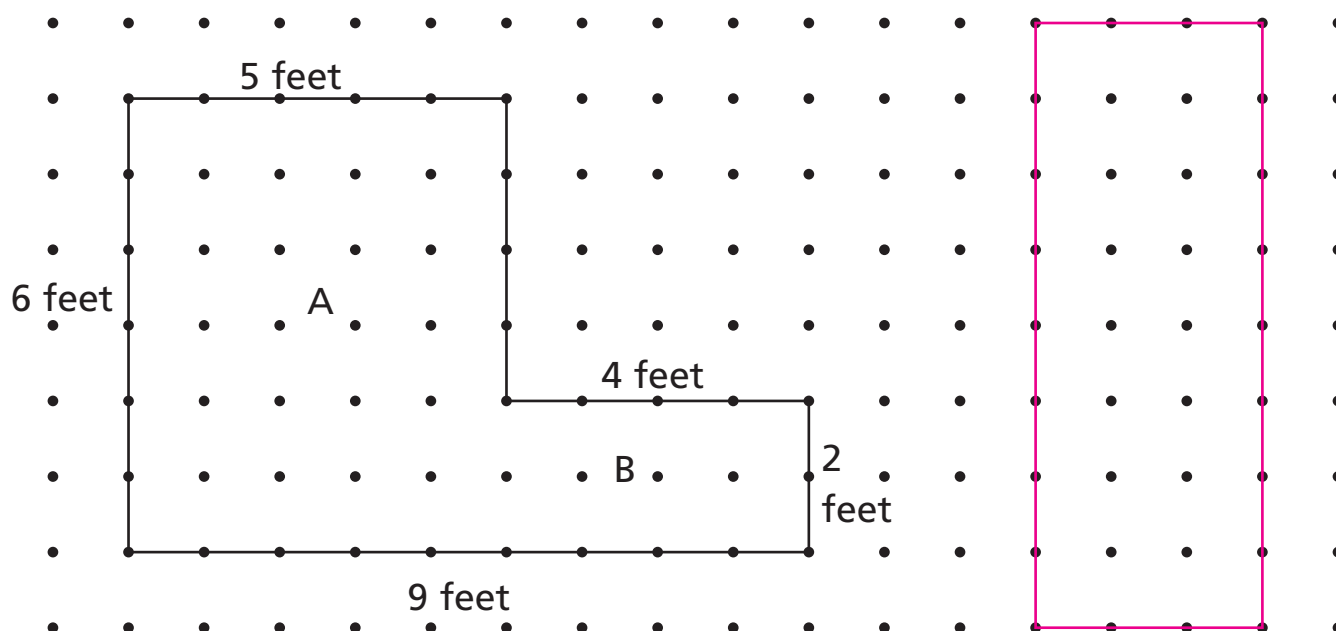
Yes; 5 extra tiles

5. **Stretch Your Thinking** Which tangram pieces can make a square with the area of 9 square inches? Remember, the square is one square inch.

Answers will vary. Possible answer: 6 squares and 6 small triangles



## Homework



Use the drawing above to solve the problems.

1. Elton wants to plant grass seed in his backyard. The two parts of his yard are shaped like rectangles. He will use 1 cup of grass seed for every square foot in his yard. How many cups will he use?

**38 cups**

2. Elton wants to put a picket fence around the outside of his backyard. How many feet of fencing will he need?

**30 feet**

3. To the right of the garden, draw a different shape that has the same perimeter as part A of Elton's garden. What is the area of your shape?

**Possible answer: 24 square feet; Possible drawing is shown.**

# Remembering

Solve.

1. The concert hall has an audience of 831 people. Special passes to meet the musicians are given to 162 people. How many people do not receive the special passes?

669 people

2. The art teacher orders 297 sheets of construction paper, 104 sheets of glitter paper, and 185 sheets of metallic paper. How many sheets of paper does she order?

586 sheets

Write an equation and solve the problem.

Sample equation is given.

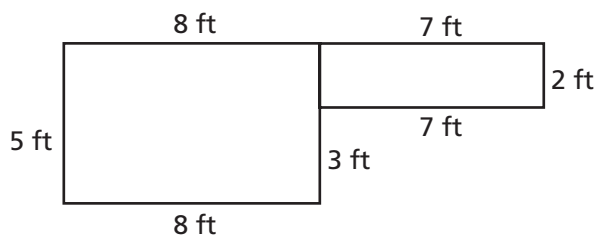
3. Dexter buys a package of 38 plates. He already has 4 plates. He puts an equal number on each of 6 tables. How many plates are on each table?

7 plates;  $(38 + 4) \div 6 = n$ ,  $n = 7$

4. Use the tangram pieces to make shapes. Choose one shape and copy it on a separate sheet of paper. Find the area of the shape you made. Remember, the square is one square inch.

Answers will vary based on students' shapes.

5. **Stretch Your Thinking** Anna has 30 feet of fence to go around her garden. The lettuce will be in a  $8 \text{ ft} \times 5 \text{ ft}$  section and the carrots will be in a  $2 \text{ ft} \times 7 \text{ ft}$  section. Will

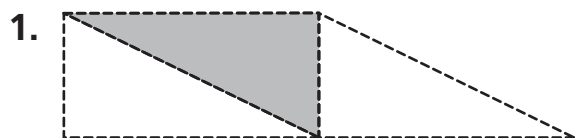


her layout work? If not, how can she change it to work?

Possible answer: No, she would need 40 ft with this layout. To make it work, she can put the  $2 \text{ ft} \times 7 \text{ ft}$  section along the 8 ft side and use only 30 ft of fence.

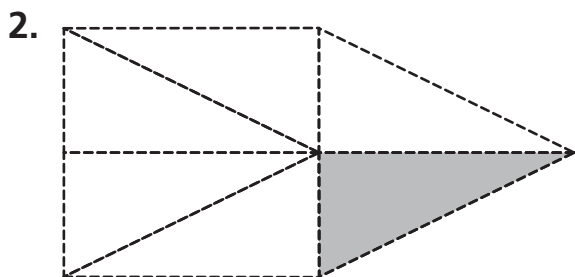
## Homework

The triangles in the shapes all have the same area. Count the equal parts in the whole. What unit fraction of the whole is the shaded triangle?



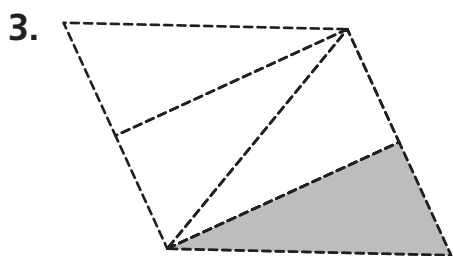
There are 3 equal parts in the whole shape.

The shaded triangle is  $\frac{1}{3}$  of the whole shape.



There are 6 equal parts in the whole shape.

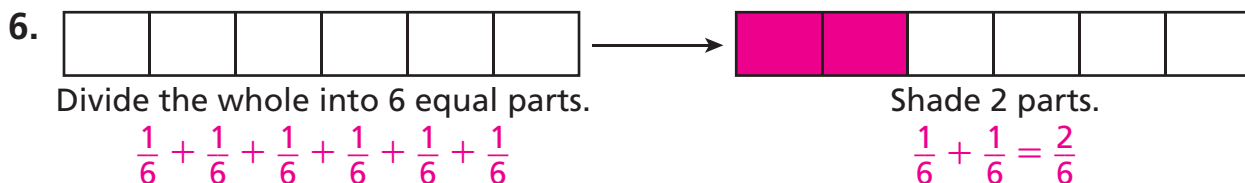
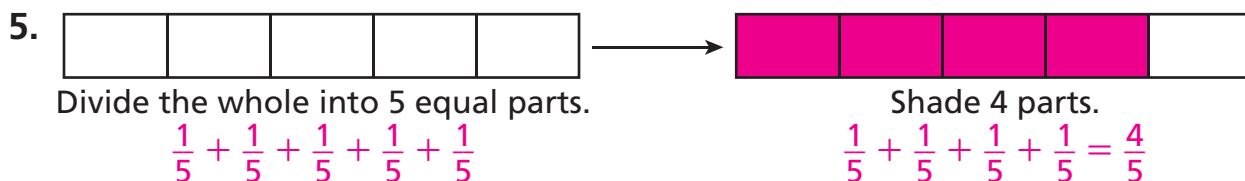
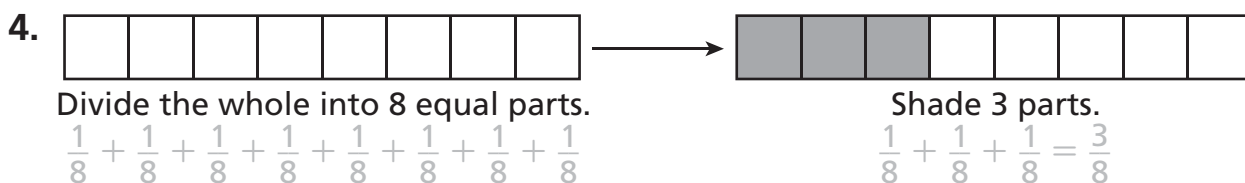
The shaded triangle is  $\frac{1}{6}$  of the whole shape.



There are 4 equal parts in the whole shape.

The shaded triangle is  $\frac{1}{4}$  of the whole shape.

Write a sum to represent the part of the fraction bar that you shaded. Then write it as one fraction.



# Remembering

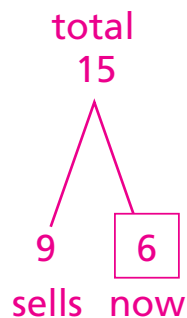
Draw a Math Mountain and write an equation to solve each problem.

Show your work.

Sample work.

1. **Take From** Kate brings 15 muffins to the bake sale. She sells 9. How many muffins does she have now?

6 muffins

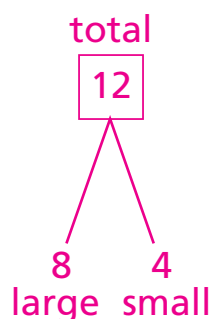


$$15 - 9 = 6$$

total sells now

2. **Put Together** Ryan has 8 large stickers and 4 small stickers. How many stickers does Ryan have altogether?

12 stickers



$$8 + 4 = 12$$

large small total

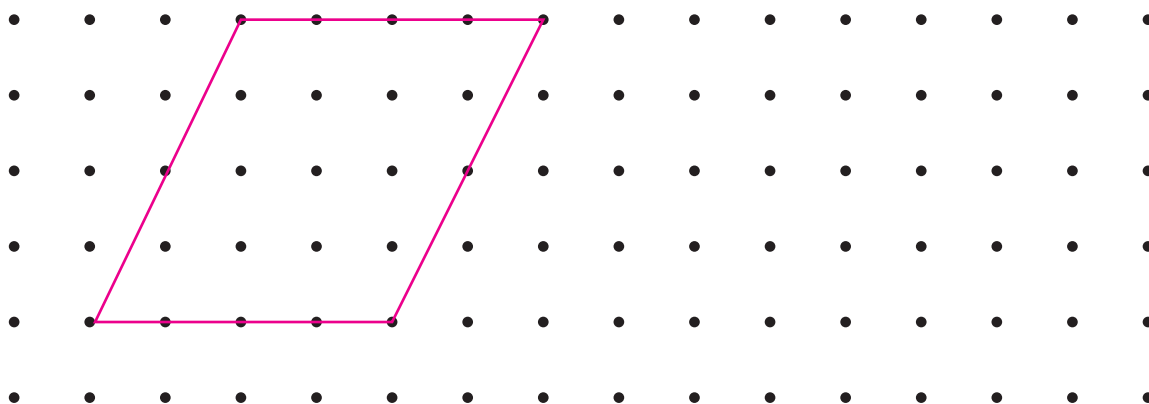
Read each sentence and write whether it is *true* or *false*.

3. All parallelograms are rectangles. false

4. All parallelograms are quadrilaterals. true

5. Draw a parallelogram with no right angles.

*Drawings will vary. Check student's drawings.*



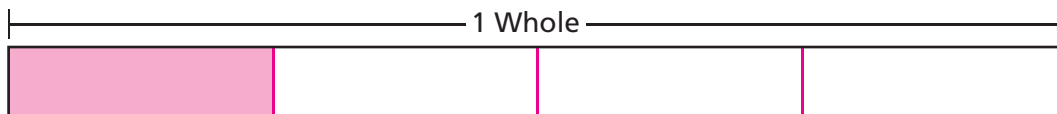
6. **Stretch Your Thinking** Cameron eats  $\frac{1}{3}$  of his granola bar before school and another  $\frac{1}{3}$  of the granola bar for lunch. Draw and shade a fraction bar to show how much of the granola bar Cameron has eaten.



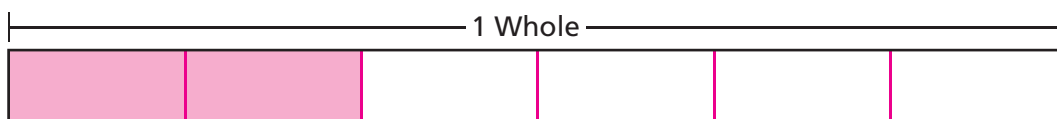
**Homework**

Shade each fraction bar to show the fraction. First, divide the fraction bar into the correct unit fractions.

1.  $\frac{1}{4}$



2.  $\frac{2}{6}$



3.  $\frac{5}{8}$

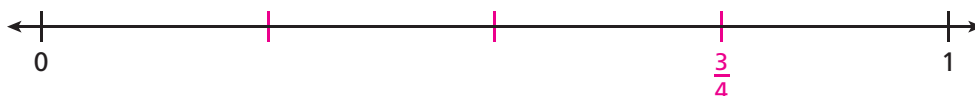


Mark each number line to show the fraction. First, divide the number line into the correct unit fractions.

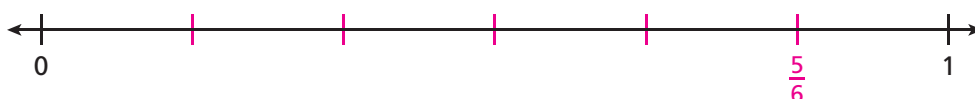
4.  $\frac{1}{3}$



5.  $\frac{3}{4}$



6.  $\frac{5}{6}$



# Remembering

Solve each problem. Label your answers.

Show your work.

1. Chen has \$8. She earns some more money babysitting. Now she has \$17. How much money does she earn for babysitting?

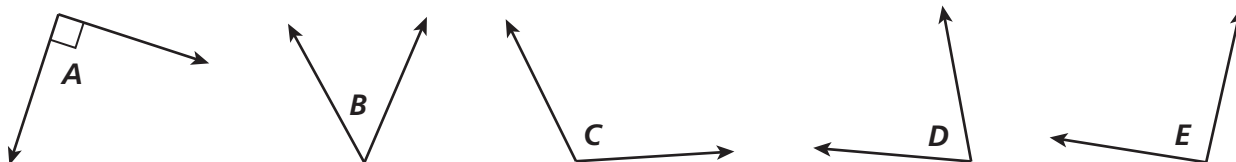
Check student's work.

\$9

2. Dylan has 48 baseball cards. He puts 8 cards on each album page. How many album pages does he fill with baseball cards?

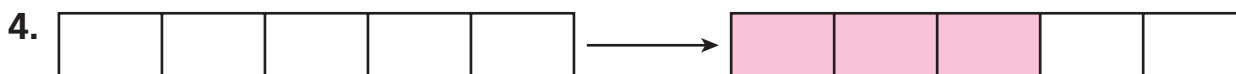
6 album pages

Look at the angles below.



3. Which angles are smaller than a right angle? B, D

Write a sum to represent the part of the fraction bar that you shaded. Then write it as one fraction.



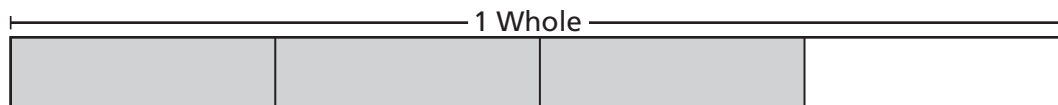
Divide the whole into 5 equal parts

Shade 3 parts

$$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$

$$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$$

5. **Stretch Your Thinking** Write a word problem to match the shaded fraction bar.



Possible answer: Mel eats  $\frac{3}{4}$  of a sandwich. Shade the fraction bar to show how much of the sandwich she eats.

## Homework

Locate each fraction less than 1 on the number line.

1.  $\frac{1}{3}$



2.  $\frac{1}{6}$

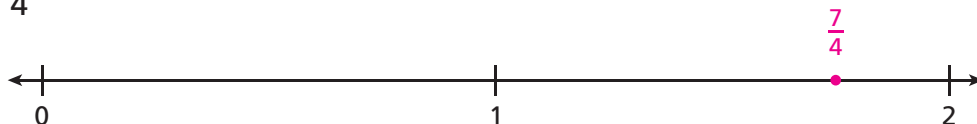


3.  $\frac{1}{4}$  and  $\frac{7}{8}$

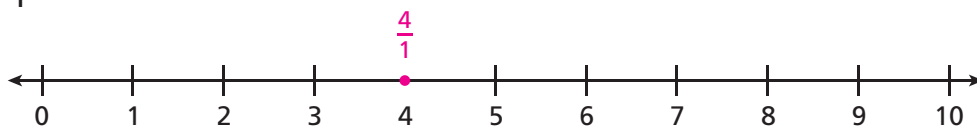


Locate each fraction greater than 1 on the number line.

4.  $\frac{7}{4}$



5.  $\frac{4}{1}$



6.  $\frac{6}{3}$



7. Explain how you located one of the fractions from Exercises 4–6.

Possible answer: For Exercise 6, I divided each whole number distance into thirds. Then I counted 6 thirds. That was the same place as the mark for 2. So, I put a point on 2 and labeled it  $\frac{6}{3}$ .

# Remembering

Solve each problem. Label your answers.

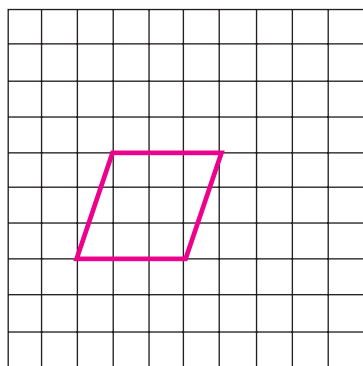
1. Aisha packs 40 books for the media center. She puts the same number of books into 8 boxes. How many books did she put in each box?

Check student's work.

5 books

Draw the figure. Answers will vary. Possible drawings shown.

2. Draw a quadrilateral that is *not* a rectangle.



Mark the number line to show the fraction. First, divide the number line into the correct unit fractions.



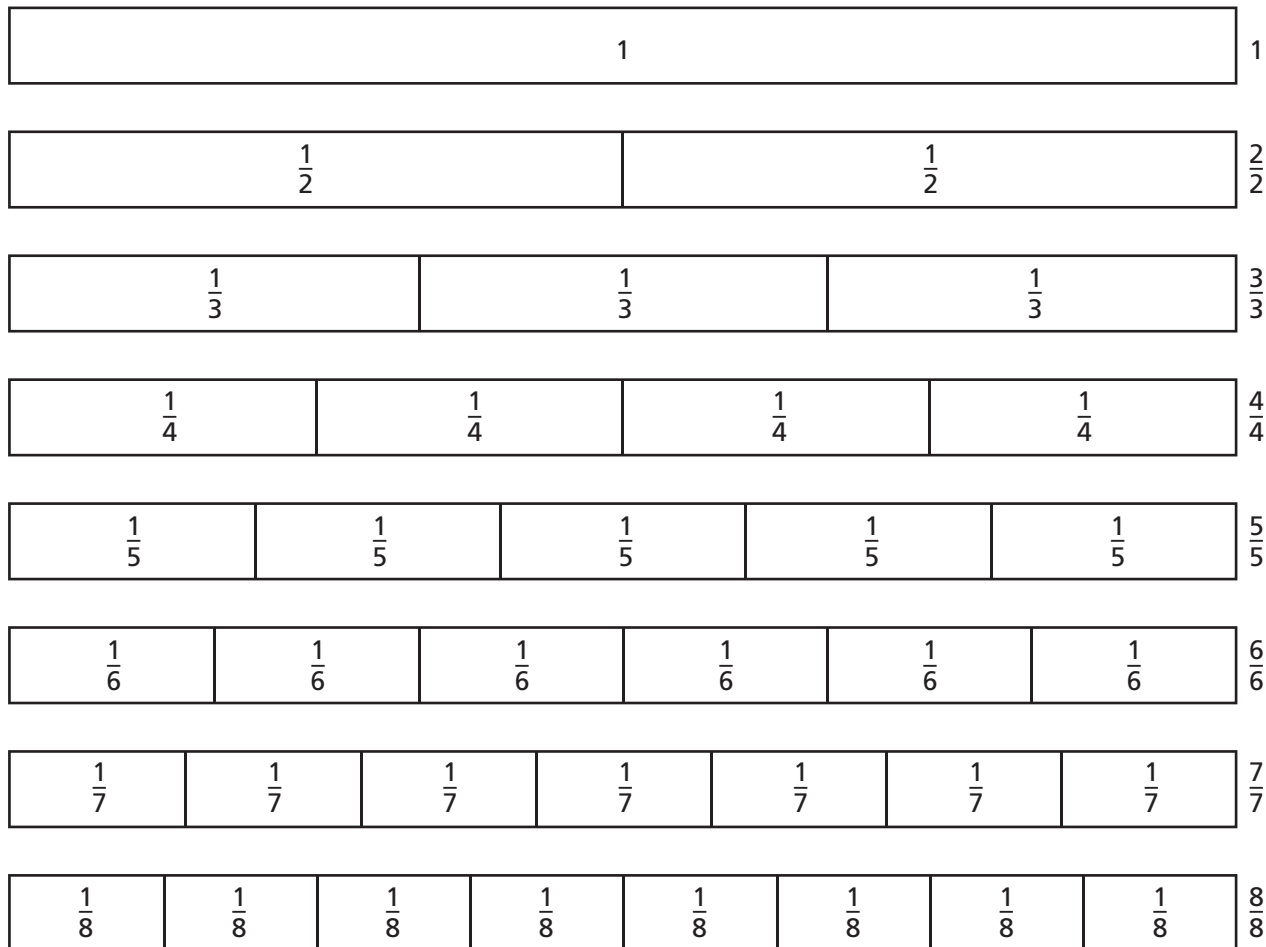
4. **Stretch Your Thinking** Use the numbers 3 and 4 to make a fraction that is greater than 1 and a fraction that is less than 1. Explain how you made your fractions without a number line.

$\frac{4}{3}$  is greater than 1 and  $\frac{3}{4}$  is less than 1. Possible

answer: If the numerator is greater than the denominator, the fraction will be greater than 1.

If the denominator is greater than the numerator, the fraction will be less than 1.



**Homework**

Use the diagram. Write  $<$  or  $>$  to compare the unit fractions.

1.  $\frac{1}{3} \bigcirc \frac{1}{7}$

2.  $\frac{1}{3} \bigcirc \frac{1}{2}$

3.  $\frac{1}{6} \bigcirc \frac{1}{7}$

4.  $\frac{1}{2} \bigcirc \frac{1}{4}$

5.  $\frac{1}{5} \bigcirc \frac{1}{3}$

6.  $\frac{1}{4} \bigcirc \frac{1}{7}$

7.  $\frac{1}{8} \bigcirc \frac{1}{7}$

8.  $\frac{1}{6} \bigcirc \frac{1}{2}$

9.  $\frac{1}{3} \bigcirc \frac{1}{8}$

10.  $\frac{1}{8} \bigcirc \frac{1}{4}$

11.  $\frac{1}{5} \bigcirc \frac{1}{2}$

12.  $\frac{1}{5} \bigcirc \frac{1}{8}$

13.  $\frac{1}{6} \bigcirc \frac{1}{3}$

14.  $\frac{1}{4} \bigcirc \frac{1}{5}$

15.  $\frac{1}{6} \bigcirc \frac{1}{5}$

16.  $\frac{1}{5} \bigcirc \frac{1}{7}$

17.  $\frac{1}{4} \bigcirc \frac{1}{3}$

18.  $\frac{1}{2} \bigcirc \frac{1}{7}$

19.  $\frac{1}{8} \bigcirc \frac{1}{6}$

20.  $\frac{1}{2} \bigcirc \frac{1}{8}$

21.  $\frac{1}{6} \bigcirc \frac{1}{4}$

# Remembering

Solve each problem. Label your answers.

Show your work.

1. Jennifer has 12 stamps. After she puts one stamp on each invitation, she has 3 left. How many invitations have stamps?

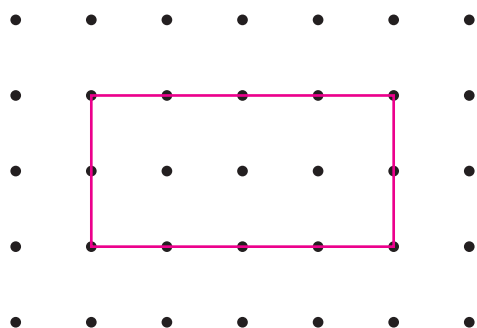
9 invitations

2. Michael played 15 songs. He played 13 fewer songs than Landon. How many songs did Landon play?

28 songs

Draw each rectangle on the dot paper. Find the perimeter and area.

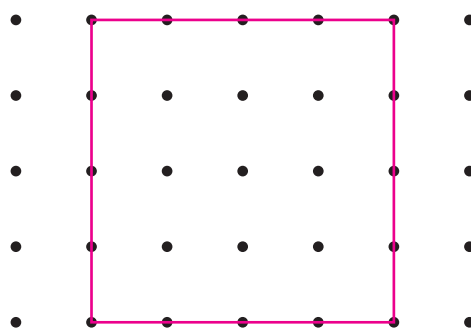
3. A rectangle 4 cm long and 2 cm wide.



Perimeter 12 cm

Area 8 sq cm

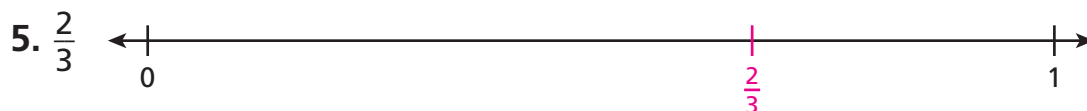
4. A rectangle 4 cm long and 4 cm wide.



Perimeter 16 cm

Area 16 sq cm

Locate the fraction less than 1 on the number line.



6. **Stretch Your Thinking** Zane says that  $\frac{1}{8}$  is greater than  $\frac{1}{4}$  because 8 is greater than 4. Do you agree? Explain.

No; Possible answer: When a whole is divided into 8 equal pieces, the pieces will be smaller than a whole divided into 4 equal pieces.

**Homework****Compare.** Use  $<$ ,  $>$ , or  $=$ .

1.  $\frac{3}{4}$   $\boxed{>}$   $\frac{3}{8}$

2.  $\frac{2}{6}$   $\boxed{<}$   $\frac{2}{5}$

3.  $\frac{5}{7}$   $\boxed{>}$   $\frac{2}{7}$

4.  $\frac{1}{6}$   $\boxed{>}$   $\frac{1}{8}$

5.  $\frac{5}{8}$   $\boxed{>}$   $\frac{3}{8}$

6.  $\frac{4}{6}$   $\boxed{<}$   $\frac{5}{6}$

7.  $\frac{4}{4}$   $\boxed{=}$   $\frac{3}{3}$

8.  $\frac{3}{5}$   $\boxed{>}$   $\frac{3}{8}$

9.  $\frac{3}{4}$   $\boxed{>}$   $\frac{2}{3}$

10.  $\frac{2}{4}$   $\boxed{<}$   $\frac{4}{4}$

11.  $\frac{5}{7}$   $\boxed{>}$   $\frac{5}{8}$

12.  $\frac{3}{3}$   $\boxed{=}$   $\frac{4}{4}$

13.  $\frac{8}{8}$   $\boxed{>}$   $\frac{6}{8}$

14.  $\frac{8}{8}$   $\boxed{=}$   $\frac{6}{6}$

15.  $\frac{8}{6}$   $\boxed{>}$   $\frac{5}{6}$

16.  $\frac{4}{8}$   $\boxed{<}$   $\frac{6}{8}$

**Solve.***Show your work.*

17. Selena got 5 out of 6 answers correct on her science quiz. Her friend Ana got 4 answers out of 6 correct on her science quiz. Which friend answered a greater fraction of the questions correctly?

Selena

18. Jay ate  $\frac{2}{3}$  of a pepperoni pizza. Darrell ate  $\frac{2}{4}$  of a mushroom pizza. If the pizza pans are the same size, who ate a greater fraction of a whole pizza?

Jay

# Remembering

Read each problem. Cross out any extra information or circle the hidden information. Then solve.

*Show your work.*

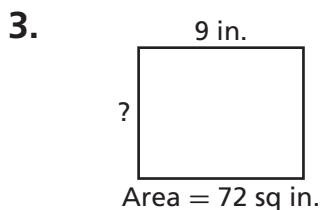
1. Jordan keeps track of rainy days for one year. This year he counted 27 weeks with at least 1 rainy day. How many weeks had no rainy days?

25 weeks

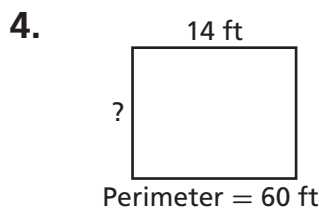
2. Claudia scores 275 points on a video game. Hannah scores 268 points on the same video game. ~~The high score for the same game is 306.~~ How many points did the girls score in all?

543 points

Find the unknown side length in each diagram.



8 in.



16 ft

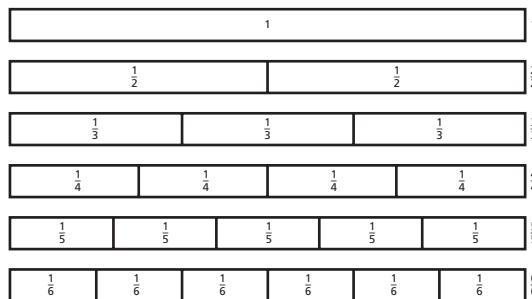
Use the diagram. Write  $<$  or  $>$  to compare the unit fractions.

5.  $\frac{1}{3}$   $>$   $\frac{1}{5}$

6.  $\frac{1}{6}$   $<$   $\frac{1}{4}$

7.  $\frac{1}{3}$   $>$   $\frac{1}{6}$

8.  $\frac{1}{5}$   $<$   $\frac{1}{2}$



9. **Stretch Your Thinking** Lauren, Amanda, and Cami each buy the same size pizza. Cami eats  $\frac{1}{2}$  of her pizza. Amanda eats less than Cami. Lauren eats more than Cami. Write two fractions for both Amanda and Lauren to show how much pizza the girls eat.

Answers will vary. Possible answers: Amanda:  $\frac{1}{3}$  or  $\frac{1}{4}$  Lauren:  $\frac{2}{3}$  or  $\frac{3}{4}$

**Homework**

Use your fraction strips for Exercises 1–6. Fill in the blanks.

1. How many eighths are in one fourth? 2

Complete these equations:

2 eighths = 1 fourth

$$\frac{2}{8} = \frac{1}{4}$$

2. How many fourths are in one half? 2

Complete these equations:

2 fourths = 1 half

$$\frac{2}{4} = \frac{1}{2}$$

3. How many eighths are in three fourths? 6

Complete these equations:

6 eighths = 3 fourths

$$\frac{6}{8} = \frac{3}{4}$$

4. How many sixths are in two thirds? 4

Complete these equations:

4 sixths = 2 thirds

$$\frac{4}{6} = \frac{2}{3}$$

5. How many sixths are in one half? 3

Complete these equations:

3 sixths = 1 half

$$\frac{3}{6} = \frac{1}{2}$$

6. Find three other pairs of equivalent fractions.

Answers will vary.

Answers will vary.

Answers will vary.

# Remembering

Multiply or divide.

1.  $5 \times 4 = \underline{20}$

2.  $7 \times 7 = \underline{49}$

3.  $32 \div 8 = \underline{4}$

4.  $45 \div 5 = \underline{9}$

5.  $9 \times 6 = \underline{54}$

6.  $42 \div 6 = \underline{7}$

Complete.

7. On a centimeter dot grid, draw all the possible rectangles with a perimeter of 14 cm and sides whose lengths are whole centimeters. Label the lengths of two adjacent sides of each rectangle.

Rectangles with Perimeter 14 cm	
Lengths of Two Adjacent Sides	Area
1 cm and 6 cm	6 sq cm
2 cm and 5 cm	10 sq cm
3 cm and 4 cm	12 sq cm

8. Find and label the area of each rectangle. Then complete the table.

Compare. Use  $<$ ,  $>$ , or  $=$ .

9.  $\frac{1}{3} \boxed{>} \frac{2}{7}$

10.  $\frac{3}{6} \boxed{>} \frac{2}{5}$

11.  $\frac{4}{6} \boxed{<} \frac{6}{6}$

12.  $\frac{4}{8} \boxed{=} \frac{2}{4}$

13.  $\frac{4}{6} \boxed{>} \frac{4}{7}$

14.  $\frac{2}{5} \boxed{<} \frac{4}{5}$

15.  $\frac{3}{6} \boxed{<} \frac{7}{8}$

16.  $\frac{3}{5} \boxed{>} \frac{3}{7}$

17.  $\frac{2}{6} \boxed{<} \frac{4}{8}$

18.  $\frac{3}{3} \boxed{=} \frac{5}{5}$

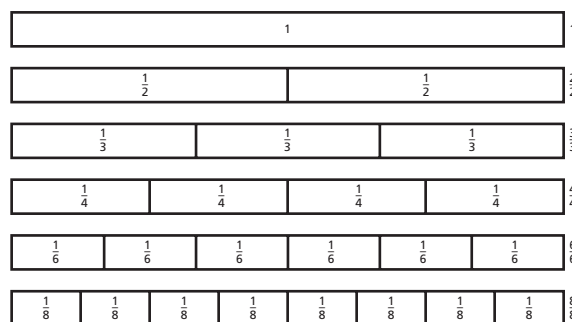
19.  $\frac{5}{4} \boxed{>} \frac{2}{4}$

20.  $\frac{5}{6} \boxed{<} \frac{5}{4}$

21. **Stretch Your Thinking** Use 4, 6, and 8 as denominators, and write six equivalent fractions.

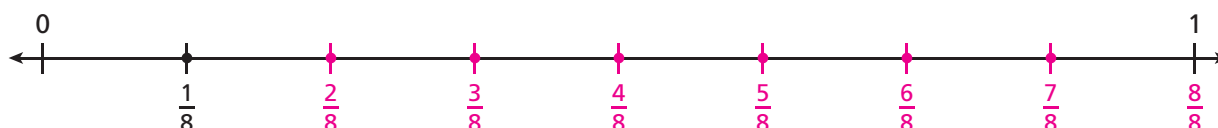
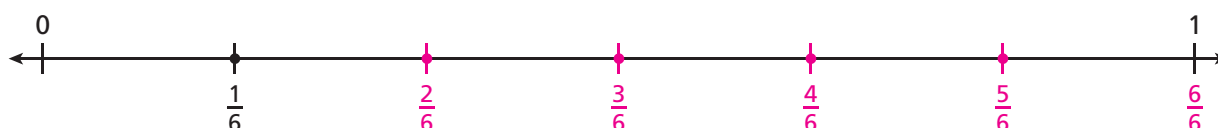
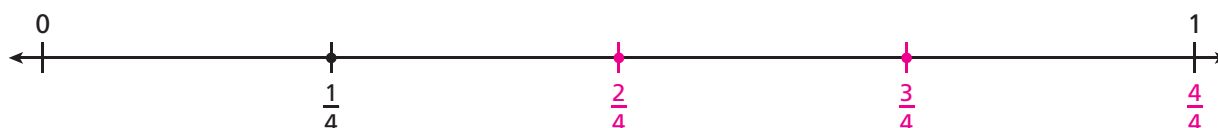
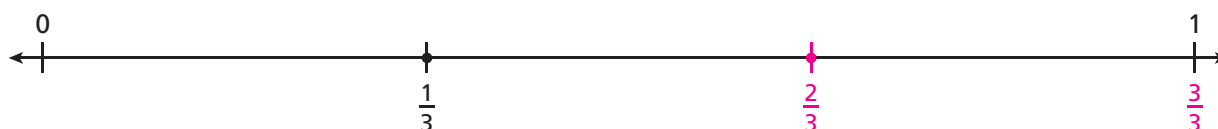
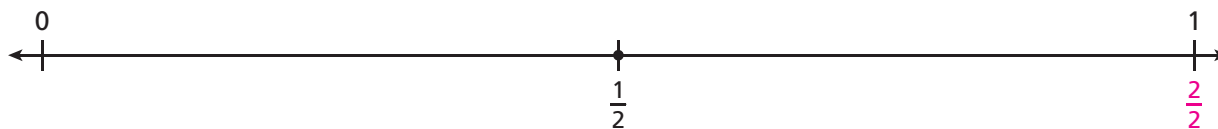
Possible answers:  $\frac{1}{4} = \frac{2}{8}$ ,  $\frac{2}{4} = \frac{4}{8}$ ,  $\frac{2}{4} = \frac{3}{6}$ ,

$\frac{3}{6} = \frac{4}{8}$ ,  $\frac{3}{4} = \frac{6}{8}$ ,  $\frac{4}{4} = \frac{6}{6}$ ,  $\frac{6}{6} = \frac{8}{8}$ ,  $\frac{4}{4} = \frac{8}{8}$



## Homework

1. Complete each number line. Show all fractions including each fraction for 1.



Use your number lines. Write an equivalence chain.

2. With fractions that equal  $\frac{1}{2}$

$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8}$$

3. With fractions that equal  $\frac{3}{4}$

$$\frac{3}{4} = \frac{6}{8}$$

4. With fractions that equal  $\frac{6}{6}$

$$\frac{6}{6} = \frac{1}{1} = \frac{2}{2} = \frac{3}{3} = \frac{4}{4} = \frac{8}{8}$$

# Remembering

Solve each problem. Label your answers.

*Show your work.*

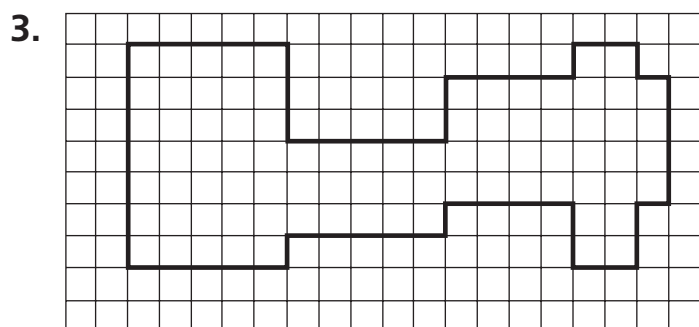
1. Mrs. Garcia has 15 pencils in a cup. 7 students take a pencil from the cup to use in class. Mrs. Garcia puts 3 more pencils in the cup. How many pencils are in the cup now?

11 pencils

2. Matthew buys 13 baseball cards. His dad buys him 5 more. Then Matthew gives his brother 6 cards. How many cards does Matthew have now?

12 baseball cards

Decompose the figure into rectangles.  
Then find the area of the figure.



84 square units

Use your fraction strips for Exercise 4. Fill in the blanks.

4. How many sixths are in one third? 2

Complete these equations:

2 sixths = 1 third  $\frac{\boxed{2}}{6} = \frac{1}{3}$

5. **Stretch Your Thinking** Look at the fractions.

$\frac{1}{2}$      $\frac{2}{4}$      $\frac{3}{6}$      $\frac{4}{8}$

Explain the relationship between the numerator and the denominator. Write a different fraction equivalent to  $\frac{1}{2}$ .

Possible answers: The numerator is half of the denominator  
or the denominator is double the numerator.  $\frac{5}{10}$



**Homework****Solve. Draw diagrams or number lines if it helps.***Show your work.*

1. Jack buys  $\frac{4}{3}$  pounds of plums. Martin buys  $\frac{6}{3}$  pounds of apples. Who buys more fruit? Explain your answer.

Martin; When you compare  $\frac{4}{3}$  and  $\frac{6}{3}$ ,  $\frac{6}{3} > \frac{4}{3}$ .

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2. May runs  $\frac{10}{4}$  miles every day after school. Beth says that she runs farther than May every day because she runs  $\frac{5}{2}$  miles every day after school. Is her statement correct? Explain your answer.

No;  $\frac{10}{4} = \frac{5}{2}$  because they are equivalent fractions.

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3. Bess has knitted  $\frac{5}{8}$  of the scarf she is making. Has she knitted more than  $\frac{1}{2}$  of the scarf? *Hint:* Find an equivalent fraction in eighths for  $\frac{1}{2}$ .

Yes;  $\frac{1}{2} = \frac{4}{8}$  and  $\frac{5}{8} > \frac{4}{8}$ .

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4. Bert used  $\frac{7}{8}$  foot of an oak board to make a tray. Akio made his tray from  $\frac{4}{4}$  foot of the same oak board. Who used more wood? How do you know?

Akio;  $\frac{4}{4} = 1$ ,  $\frac{7}{8}$  is less than 1, so Akio used more wood than Bert.

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5. A bottle of orange juice holds  $\frac{4}{6}$  quart of juice. A bottle of pineapple juice holds  $\frac{2}{3}$  quart of juice. Which bottle has more juice? How do you know?

Both bottles have the same amount of juice;  $\frac{4}{6} = \frac{2}{3}$ .

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# Remembering

The table shows the number of each type of book sold on Monday and Tuesday at the book sale.

**Book Sales**

	Fiction	Nonfiction	Used
Monday	223	166	92
Tuesday	137	257	88

- On Monday, how many more nonfiction and used books are sold than fiction books?
- How many books were sold on Tuesday?

$$\underline{35 \text{ books; } 166 + 92 - 223 = n, n = 35}$$

$$\underline{482 \text{ books; } 137 + 257 + 88 = n, n = 482}$$

**Solve. Draw a diagram to represent the situation.**

- Rachel has 20 one-inch beads. She wants to use all of them to make a square picture frame. What will be the length of each side?

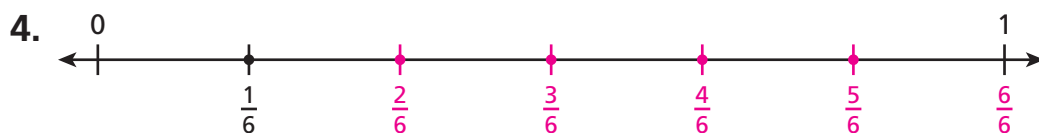
Perimeter

Area

Side Length

5 inches

**Complete the number line. Show all fractions including the fraction for 1.**



- Stretch Your Thinking** Christine and Alan each buy the same size sandwich. Christine eats  $\frac{3}{4}$  of her sandwich. Alan eats more of his sandwich than Christine. Use a different denominator to show how much of the sandwich Alan might have eaten.

Possible answer:  $\frac{5}{6}$

**Homework****Complete.**

1. Fold a sheet of paper in half. Open the paper and shade one part. Write a fraction for the shaded part.

 $\frac{1}{2}$ 

2. Refold the paper along the same line. Fold it in half again. Write a fraction for the part you think is shaded.

 $\frac{2}{4}$ 

3. Refold the paper along the same lines. Fold it in half one more time. Write a fraction for the part you think is shaded.

 $\frac{4}{8}$ 

4. Unfold the paper to check.

5. Write an equivalence chain using the fractions that name the shaded part of the paper.

 $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$ 

6. Write another fraction that is equivalent to  $\frac{1}{2}$ .

 $\frac{3}{6}$ 

7. What 3 fractions can you write for the whole?

 $\frac{2}{2}, \frac{4}{4}, \frac{8}{8}$

## Remembering

For 1–2, write an equation and solve the problem.

*Show your work.*

1. Brittany places 6 glasses on each of 8 tables. Then she puts 5 more glasses on one of the tables. How many glasses did she put on the tables altogether?

53 glasses;  $8 \times 6 + 5 = n$ ;  $n = 53$

**Sample equations are given.**

2. Eric has 34 toy cars. He gives 4 toy cars to his little brother. Then Eric puts an equal number of his toy cars in 5 bags. How many toy cars are in each bag?

6 toy cars;  $(34 - 4) \div 5 = n$ ;  $n = 6$

3. Use the tangram pieces to make shapes. Choose one shape and copy it on a separate sheet of paper. Find the area of the shape you made. Remember, the square is one square inch.

Answers will vary based on students' shapes.

Solve. Draw diagrams or number lines if it helps.

*Show your work.*

4. John uses  $\frac{8}{6}$  ounces of milk for his recipe. Mya uses  $\frac{4}{3}$  ounces of milk for her recipe. Who uses more milk? Explain your answer.

Neither;  $\frac{8}{6} = \frac{4}{3}$  so they both use the same amount.

5. Keisha's box weighs  $\frac{5}{4}$  pounds. Dylan's box weighs  $\frac{7}{4}$  pounds. Whose box weighs more?

Dylan's box; When you compare  $\frac{5}{4}$  and  $\frac{7}{4}$ ,  $\frac{7}{4} > \frac{5}{4}$ .

6. **Stretch Your Thinking** How many times would you fold a sheet of paper in half to have eighths? Explain.

3 times; Possible answer: folding the paper in half will make two halves, folding in half again makes four fourths, and folding in half a third time makes eight eighths.