Homework and Remembering

HOUGHTON MIFFLIN HARCOURT







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

	In Order	Mixed Up
	1 × 5 = 5	9 × 5 = 45
	2 × 5 = 10	5 × 5 = 25
5 s	3 × 5 = 15	2 × 5 = 10
	4 × 5 = 20	7 × 5 = 35
	5 × 5 = 25	4 × 5 = 20
	6 × 5 = 30	6 × 5 = 30
	7 × 5 = 35	10 × 5 = 50
	8 × 5 = 40	8 × 5 = 40
	9 × 5 = 45	1 × 5 = 5
	10 × 5 = 50	3 × 5 = 15

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

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50' d0 **5**' d2 **3**' 10 **d**' 30 **2**' 12 **0**' 50 **10**' 32 **15**' 10 **18**' 32 **16**' 52 **17**' d0 **5**' 16 **2**' 20 **18**' 32 **18**' 32 **18**' 32

Study Plan

Homework Helper

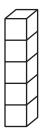
Write each total.

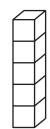
1.
$$2 \times (5) = 5 + 5 =$$

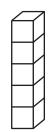
3.
$$6*(5)=5+5+5+5+5+5=$$

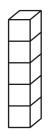
Write the 5s additions that show each multiplication. Then write the total.

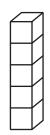
Count by 5s to find the total number.

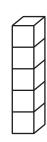












1. 5











2. 65

3. 30

5. 75

4. 45

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.

Study Plan

Homework Helper

Write a multiplication equation to find the total number.

1. How many apples?









2. How many lenses?



UNIT 1 LESSON 2













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

Write each total.

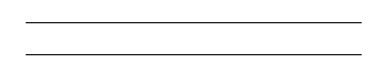
1.
$$3 \times (5) = 5 + 5 + 5 =$$

2.
$$5 \bullet (5) = 5 + 5 + 5 + 5 + 5 =$$

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

Write each product.

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



Home Study Sheet A

Count-bysMixed Up \times Mixed Up \div Count-bysMixed Up \times $1 \times 5 = 5$ $2 \times 5 = 10$ $10 \div 5 = 2$ $1 \times 2 = 2$ $7 \times 2 = 14$ $2 \times 5 = 10$ $9 \times 5 = 45$ $35 \div 5 = 7$ $2 \times 2 = 4$ $1 \times 2 = 2$ $3 \times 5 = 15$ $1 \times 5 = 5$ $50 \div 5 = 10$ $3 \times 2 = 6$ $3 \times 2 = 6$ $4 \times 5 = 20$ $5 \times 5 = 25$ $5 \div 5 = 1$ $4 \times 2 = 8$ $5 \times 2 = 10$ $5 \times 5 = 25$ $7 \times 5 = 35$ $20 \div 5 = 4$ $5 \times 2 = 10$ $6 \times 2 = 12$ $6 \times 5 = 30$ $3 \times 5 = 15$ $15 \div 5 = 3$ $6 \times 2 = 12$ $8 \times 2 = 16$ $7 \times 5 = 35$ $10 \times 5 = 50$ $30 \div 5 = 6$ $7 \times 2 = 14$ $2 \times 2 = 4$ $8 \times 5 = 40$ $6 \times 5 = 30$ $40 \div 5 = 8$ $8 \times 2 = 16$ $10 \times 2 = 20$ $9 \times 5 = 45$ $4 \times 5 = 20$ $25 \div 5 = 5$ $9 \times 2 = 18$ $4 \times 2 = 8$ $10 \times 5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 = 18$		55			2s	
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$5 = 15$ $1 \times 5 = 5$ $50 \div 5 = 10$ $3 \times 2 = 6$ $3 \times 2 =$ $5 = 20$ $5 \times 5 = 25$ $5 \div 5 = 1$ $4 \times 2 = 8$ $5 \times 2 =$ $5 = 25$ $7 \times 5 = 35$ $20 \div 5 = 4$ $5 \times 2 = 10$ $6 \times 2 =$ $5 = 30$ $3 \times 5 = 15$ $15 \div 5 = 3$ $6 \times 2 = 12$ $8 \times 2 =$ $5 = 35$ $10 \times 5 = 50$ $30 \div 5 = 6$ $7 \times 2 = 14$ $2 \times 2 =$ $5 = 40$ $6 \times 5 = 30$ $40 \div 5 = 8$ $8 \times 2 = 16$ $10 \times 2 =$ $5 = 45$ $4 \times 5 = 20$ $25 \div 5 = 5$ $9 \times 2 = 18$ $4 \times 2 =$ $5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 =$	× 5 =	× 5	∙ 5	× 2	× 2 =	$2 \div 2 = 1$
$5 = 20$ $5 \times 5 = 25$ $5 \div 5 = 1$ $4 \times 2 = 8$ $5 \times 2 =$ $5 = 25$ $7 \times 5 = 35$ $20 \div 5 = 4$ $5 \times 2 = 10$ $6 \times 2 =$ $5 = 30$ $3 \times 5 = 15$ $15 \div 5 = 3$ $6 \times 2 = 12$ $8 \times 2 =$ $5 = 35$ $10 \times 5 = 50$ $30 \div 5 = 6$ $7 \times 2 = 14$ $2 \times 2 =$ $5 = 40$ $6 \times 5 = 30$ $40 \div 5 = 8$ $8 \times 2 = 16$ $10 \times 2 =$ $5 = 45$ $4 \times 5 = 20$ $25 \div 5 = 5$ $9 \times 2 = 18$ $4 \times 2 =$ $5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 =$	× 5	5 =	÷ 5 =	× 2	× 2	$6 \div 2 = 3$
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$5 = 35$ $10 \times 5 = 50$ $30 \div 5 = 6$ $7 \times 2 = 14$ $2 \times 2 = 8$ $5 = 40$ $6 \times 5 = 30$ $40 \div 5 = 8$ $8 \times 2 = 16$ $10 \times 2 = 10$ $5 = 45$ $4 \times 5 = 20$ $25 \div 5 = 5$ $9 \times 2 = 18$ $4 \times 2 = 10$ $5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 = 10$	× 5	× 5	÷ 5 =	× 2 ×	× 2	$4 \div 2 = 2$
$5 = 40$ $6 \times 5 = 30$ $40 \div 5 = 8$ $8 \times 2 = 16$ $10 \times 2 = 1$ $5 = 45$ $4 \times 5 = 20$ $25 \div 5 = 5$ $9 \times 2 = 18$ $4 \times 2 = 1$ $5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 = 1$	× 5	× 5	÷ 5 =	× 2	× 2 ×	$10 \div 2 = 5$
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$5 = 50$ $8 \times 5 = 40$ $45 \div 5 = 9$ $10 \times 2 = 20$ $9 \times 2 =$	× 5	× 5	÷ 5 =	× 2 =	× 2 ×	$14 \div 2 = 7$
	2 =	× 5 =	÷ 5 =	= 7 × 5	× 2 =	$18 \div 2 = 9$

	98	
Count-bys	Mixed Up ×	Mixed Up ÷
$1 \times 9 = 9$	$2 \times 9 = 18$	$81 \div 9 = 9$
$2\times9=18$	$4 \times 9 = 36$	$18 \div 9 = 2$
$3 \times 9 = 27$	$7 \times 9 = 63$	$36 \div 9 = 4$
$4 \times 9 = 36$	$8 \times 9 = 72$	$9 \div 9 = 1$
$5 \times 9 = 45$	$3 \times 9 = 27$	$54 \div 9 = 6$
$6\times9=54$	$10 \times 9 = 90$	$27 \div 9 = 3$
$7 \times 9 = 63$	$1 \times 9 = 9$	$63 \div 9 = 7$
$8 \times 9 = 72$	$6 \times 9 = 54$	$72 \div 9 = 8$
$9 \times 9 = 81$	$5 \times 9 = 45$	$90 \div 9 = 10$
$10 \times 9 = 90$	$9 \times 9 = 81$	$45 \div 9 = 5$

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



Home Signature Sheet

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

Study Plan

Homework Helper

Write a multiplication equation for each array.

1. How many muffins?



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

Write each product.

Write a multiplication equation to find the total number.

7. How many cubes?





8. How many sides?





9. How many sides?



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.



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

	In Order ×	Mixed Up ×	Mixed Up ÷
	1 × 5 = 5	4 × 5 = 20	20 ÷ 5 = 4
	2 × 5 = 10	7 × 5 = 35	5 ÷ 5 = 1
	3 × 5 = 15	2 × 5 = 10	50 ÷ 5 = 10
5 s	4 × 5 = 20	5 × 5 = 25	$35 \div 5 = 7$
	5 × 5 = 25	9 × 5 = 45	15 ÷ 5 = 3
	6 × 5 = 30	1 × 5 = 5	45 ÷ 5 = 9
	7 × 5 = 35	10 × 5 = 50	10 ÷ 5 = 2
	8 × 5 = 40	3 × 5 = 15	25 ÷ 5 = 5
	9 × 5 = 45	6 × 5 = 30	40 ÷ 5 = 8
	10 × 5 = 50	8 × 5 = 40	$30 \div 5 = 6$

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

4.
$$\times$$
 5 = 10

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

16.
$$\div$$
 5 = 7

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

1.30 2.9 3.7 4.2 5.15 6.10 7.45 8.4 9.5 10.8 11.25 12.7 18.40 19.4 20.1 21.10

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.

- **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?
- **3.** A group of singers has 45 members. The singers are arranged in groups of 5 on the stage. How many groups are there?
- **4.** Brianna arranged 40 marbles into an array with 5 marbles in each row. How many rows of marbles were in her array?

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

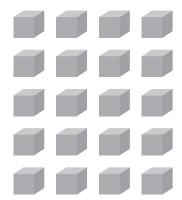
- 1. Ann has 5 boxes with 7 crayons in each box. How many crayons does Ann have?
- 2. Mr. Garcia displays the school trophies in 3 rows of 5. How many trophies does Mr. Garcia display?

Write a multiplication equation for each array.

3. How many dots?



4. How many cubes?



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



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
	1 × 2 = 2	4 × 2 = 8	18 ÷ 2 = 9
	2 × 2 = 4	7 × 2 = 14	6 ÷ 2 = 3
	3 × 2 = 6	2 × 2 = 4	2 ÷ 2 = 1
	4 × 2 = 8	5 × 2 = 10	16 ÷ 2 = 8
2 s	5 × 2 = 10	9 × 2 = 18	14 ÷ 2 = 7
	6 × 2 = 12	1 × 2 = 2	4 ÷ 2 = 2
	7 × 2 = 14	10 × 2 = 20	20 ÷ 2 = 10
	8 × 2 = 16	3 × 2 = 6	8 ÷ 2 = 4
	9 × 2 = 18	6 × 2 = 12	12 ÷ 2 = 6
	10 × 2 = 20	8 × 2 = 16	10 ÷ 2 = 5

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

6.
$$\frac{20}{2} =$$

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

21.
$$\frac{}{5}$$
 = 7

1.8 2.4 3.12 4.9 5.20 6.10 7.50 8.8 9.30 10.6 11.35

Home Check Sheet 1: 5s and 2s

5s Multiplication	5s Divisions	2s Multiplications	2s Divisions	
2 × 5 = 10	30 / 5 = 6	4 × 2 = 8	8 / 2 = 4	
5 • 6 = 30	5 ÷ 5 = 1	2 • 8 = 16	18 ÷ 2 = 9	
5 * 9 = 45	15 / 5 = 3	1 * 2 = 2	2 / 2 = 1	
4 × 5 = 20	50 ÷ 5 = 10	6 × 2 = 12	16 ÷ 2 = 8	
5 • 7 = 35	20 / 5 = 4	2 • 9 = 18	4 / 2 = 2	
10 * 5 = 50	10 ÷ 5 = 2	2 * 2 = 4	20 ÷ 2 = 10	
1 × 5 = 5	35 / 5 = 7	3 × 2 = 6	10 / 2 = 5	
5 • 3 = 15	40 ÷ 5 = 8	2 • 5 = 10	12 ÷ 2 = 6	
8 * 5 = 40	25 / 5 = 5	10 * 2 = 20	6 / 2 = 3	
5 × 5 = 25	45 / 5 = 9	2 × 7 = 14	14 / 2 = 7	
5 • 8 = 40	20 ÷ 5 = 4	2 • 10 = 20	4 ÷ 2 = 2	
7 * 5 = 35	15 / 5 = 3	9 * 2 = 18	2 / 2 = 1	
5 × 4 = 20	30 ÷ 5 = 6	2 × 6 = 12	8 ÷ 2 = 4	
6 • 5 = 30	25 / 5 = 5	8 • 2 = 16	6 / 2 = 3	
5 * 1 = 5	10 ÷ 5 = 2	2 * 3 = 6	20 ÷ 2 = 10	
5 × 10 = 50	45 / 5 = 9	2 × 2 = 4	14 / 2 = 7	
9 • 5 = 45	35 ÷ 5 = 7	1 • 2 = 2	10 ÷ 2 = 5	
5 * 2 = 10	50 ÷ 5 = 10	2 * 4 = 8	16 ÷ 2 = 8	
3 × 5 = 15	40 / 5 = 8	5 × 2 = 10	12 / 2 = 6	
5 • 5 = 25	5 ÷ 5 = 1	7 • 2 = 14	18 ÷ 2 = 9	



UNIT 1 LESSON 5 Home Check Sheet 1: 2s and 5s

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

- 3. Jason served his family dinner. He put 5 carrots on each of the 4 plates. How many carrots did Jason serve in all?
- 4. Olivia filled 8 vases with flowers. She put 5 flowers in each vase. How many flowers did she put in the vases?

- 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. 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?

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

Write a multiplication equation for the array.

3. How many dots?



 $\bullet \bullet \bullet \bullet \bullet \bullet$

(

Multiply or divide to find the unknown numbers.

6.
$$\times$$
 5 = 50

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

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?

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?
- 2. An orchard has 6 rows of apple trees. Each row has 5 trees. How many apple trees are in the orchard?
- 3. Navin arranged his soccer trophies into 5 equal rows. He has 25 trophies. How many are in each row?
- 4. Tickets to the school play cost\$2 each. Mrs. Cortez spent\$16 on tickets. How many tickets did she buy?
- **5.** Jimet solved 20 multiplications. There were 5 multiplications in each row. How many rows of multiplications did she solve?
- **6.** Josh has 2 peaches for each of his 6 friends. How many peaches does he have?

Write a multiplication equation for each array.

1. How many dots?



2. How many dots?



Multiply or divide to find the unknown numbers.

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

Write an equation and solve the problem.

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



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
10 s	1 × 10 = 10	4 × 10 = 40	100 ÷ 10 = 10
	2 × 10 = 20	7 × 10 = 70	20 ÷ 10 = 2
	3 × 10 = 30	2 × 10 = 20	40 ÷ 10 = 4
	4 × 10 = 40	5 × 10 = 50	70 ÷ 10 = 7
	5 × 10 = 50	9 × 10 = 90	30 ÷ 10 = 3
	6 × 10 = 60	1 × 10 = 10	60 ÷ 10 = 6
	7 × 10 = 70	10 × 10 = 100	80 ÷ 10 = 8
	8 × 10 = 80	3 × 10 = 30	10 ÷ 10 = 1
	9 × 10 = 90	6 × 10 = 60	50 ÷ 10 = 5
	10 × 10 = 100	8 × 10 = 80	90 ÷ 10 = 9

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

6.
$$\frac{60}{10} =$$

7.
$$\times$$
 5 = 30

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

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

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

1. 20 2. 3 3.8 4.8 5.8 6.6 7.6 8.10 9.60 10.5 11.70 12.0 20.30 21.8 12.7 13.18 14.9 15.40 16.10 17.7 18.2 19.7 20.30 21.8

Study Plan

Homework Helper

Write an equation and solve the problem.

- 1. Wendy has 100 cents. She wants to buy some marbles that cost 10 cents each. How many marbles can she buy?
- 2. Natalie turned off 2 lights in each of the 6 rooms of her house. How many lights did she turn off?
- **3.** Luis has 18 single socks. How many pairs of socks does he have?
- **4.** Lana has 9 nickels. She wants to buy an apple that costs 40 cents. Does she have enough money?
- **5.** Annabelle had 20 crayons. She gave 5 of them to each of her sisters. How many sisters does Annabelle have?
- 6. Harvey wrote letters to 10 of his friends. Each letter was 3 pages long. How many pages did Harvey write?

Complete the table.

7.

Number of Nickels	1	3	5	8		
Total Amount		15¢			45¢	50¢

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

Multiply or divide to find the unknown numbers.

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

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?
- 10. The class lined up in 2 rows with 8 students in each row. How many students are in the class?
- **11. Stretch Your Thinking** Explain how you know if a number can be divided by 10 evenly.

Date

Homework

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

Name

	× In Order	× Mixed Up	÷ Mixed Up
	1 × 9 = 9	4 × 9 = 36	63 ÷ 9 = 7
	2 × 9 = 18	7 × 9 = 63	9 ÷ 9 = 1
	3 × 9 = 27	2 × 9 = 18	54 ÷ 9 = 6
	4 × 9 = 36	5 × 9 = 45	18 ÷ 9 = 2
	5 × 9 = 45	9 × 9 = 81	90 ÷ 9 = 10
9 s	6 × 9 = 54	1 × 9 = 9	81 ÷ 9 = 9
	7 × 9 = 63	10 × 9 = 90	45 ÷ 9 = 5
	8 × 9 = 72	3 × 9 = 27	27 ÷ 9 = 3
	9 × 9 = 81	6 × 9 = 54	36 ÷ 9 = 4
	10 × 9 = 90	8 × 9 = 72	72 ÷ 9 = 8

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

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

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

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

Date

Homework

Home Check Sheet 2: 10s and 9s

10s	10s	9s	9s
Multiplications	Divisions	Multiplications	Divisions
9 × 10 = 90	100 / 10 = 10	3 × 9 = 27	27 / 9 = 3
10 • 3 = 30	50 ÷ 10 = 5	9 • 7 = 63	9 ÷ 9 = 1
10 * 6 = 60	70 / 10 = 7	10 * 9 = 90	81 / 9 = 9
1 × 10 = 10	40 ÷ 10 = 4	5 × 9 = 45	45 ÷ 9 = 5
10 • 4 = 40	80 / 10 = 8	9 • 8 = 72	90 / 9 = 10
10 * 7 = 70	60 ÷ 10 = 6	9 * 1 = 9	36 ÷ 9 = 4
8 × 10 = 80	10 / 10 = 1	2 × 9 = 18	18 / 9 = 2
10 • 10 = 100	20 ÷ 10 = 2	9 • 9 = 81	63 ÷ 9 = 7
5 * 10 = 50	90 / 10 = 9	6 * 9 = 54	54 / 9 = 6
10 × 2 = 20	30 / 10 = 3	9 × 4 = 36	72 / 9 = 8
10 • 5 = 50	80 ÷ 10 = 8	9 • 5 = 45	27 ÷ 9 = 3
4 * 10 = 40	70 / 10 = 7	4 * 9 = 36	45 / 9 = 5
10 × 1 = 10	100 ÷ 10 = 10	9 × 1 = 9	63 ÷ 9 = 7
3 • 10 = 30	90 / 10 = 9	3 • 9 = 27	72 / 9 = 8
10 * 8 = 80	60 ÷ 10 = 6	9 * 8 = 72	54 ÷ 9 = 6
7 × 10 = 70	30 / 10 = 3	7 × 9 = 63	18 / 9 = 2
6 • 10 = 60	10 ÷ 10 = 1	6 • 9 = 54	90 ÷ 9 = 10
10 * 9 = 90	40 ÷ 10 = 4	9 * 9 = 81	9 ÷ 9 = 1
10 × 10 = 100	20 / 10 = 2	10 × 9 = 90	36 / 9 = 4
2 • 10 = 20	50 ÷ 10 = 5	2 • 9 = 18	81 ÷ 9 = 9



UNIT 1 LESSON 8 Home Check Sheet 2: 10s and 9s

Study Plan

Homework Helper

Write an equation for each situation. Then solve the problem.

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

Show your work.

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

Multiply or divide to find the unknown numbers.

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

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?
- **8.** A garden has 2 rows of tomato plants. Each row has 8 tomato plants. How many tomato plants are in the garden?
- **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. Seven children each show 5 fingers. How many fingers are being shown?

Complete the table.

11. Number of Dimes	1	3		7	9
Total Amount			50⊄		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?

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

2s, 5s, 9s,10s Multiplications	2s, 5s, 9s, 10s Multiplications	2s, 5s, 9s, 10s Divisions	2s, 5s, 9s, 10s Divisions
2 × 10 = 20	5 × 10 = 50	18 / 2 = 9	36 / 9 = 4
10 • 5 = 50	10 • 9 = 90	50 ÷ 5 = 10	70 ÷ 10 = 7
9 * 6 = 54	4 * 10 = 40	72 / 9 = 8	18 / 2 = 9
7 × 10 = 70	2 × 9 = 18	60 ÷ 10 = 6	45 ÷ 5 = 9
2 • 3 = 6	5 • 3 = 15	12 / 2 = 6	45 / 9 = 5
5 * 7 = 35	6 * 9 = 54	30 ÷ 5 = 6	30 ÷ 10 = 3
9 × 10 = 90	10 × 3 = 30	18 / 9 = 2	6 / 2 = 3
6 • 10 = 60	3 • 2 = 6	50 ÷ 10 = 5	50 ÷ 5 = 10
8 * 2 = 16	5 * 8 = 40	14 / 2 = 7	27 / 9 = 3
5 × 6 = 30	9 × 9 = 81	25 / 5 = 5	70 / 10 = 7
9 • 5 = 45	10 • 4 = 40	81 ÷ 9 = 9	20 ÷ 2 = 10
8 * 10 = 80	9 * 2 = 18	20 / 10 = 2	45 / 5 = 9
2 × 1 = 2	5 × 1 = 5	8 ÷ 2 = 4	54 ÷ 9 = 6
3 • 5 = 15	9 • 6 = 54	45 / 5 = 9	80 / 10 = 8
4 * 9 = 36	10 * 1 = 10	63 ÷ 9 = 7	16 ÷ 2 = 8
3 × 10 = 30	7 × 2 = 14	30 / 10 = 3	15 / 5 = 3
2 • 6 = 12	6 • 5 = 30	10 ÷ 2 = 5	90 ÷ 9 = 10
4 * 5 = 20	8 * 9 = 72	40 ÷ 5 = 8	100 ÷ 10 = 10
9 × 7 = 63	10 × 6 = 60	9 / 9 = 1	12 / 2 = 6
1 • 10 = 10	2 • 8 = 16	50 ÷ 10 = 5	35 ÷ 5 = 7

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

6.
$$\frac{14}{2} =$$

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

Study Plan

Homework Helper

Write an equation for each situation. Then solve the problem.

- 1. Quinn rode his bike 35 miles. He stopped for water every 5 miles. How many times did Quinn stop for water?
- 2. Roy had 12 bottles of juice. He put them in the refrigerator in 2 rows. How many bottles were in each row?

- 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?
- 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?
- **5.** Eric had 2 picnic baskets. He put 7 apples in each one. How many apples did he put into the picnic baskets?
- **6.** Grace has read 2 chapters in each of her 9 books. How many chapters has she read in all?

Remembering

Write an equation and solve the problem.

- 1. Maria wants some pens that cost 2. Mrs. Lee has 5 crayons for each \$2 each. She spends \$12 on pens. How many pens does she buy?
- of her 10 students. How many crayons does Mrs. Lee have?

Multiply or divide to find the unknown numbers.

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

Write an equation and solve the problem.

- 9. The art teacher has 63 paintbrushes. There are 9 paintbrushes in each box. How many boxes are there?
- 10. There are 8 plates. Jamie puts 9 strawberries on each plate. How many strawberries are on the plates?
- 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?
- 12. Stretch Your Thinking Write a word problem using 9 and 10 as factors. Write an equation to solve your problem.



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
	1 × 3 = 3	3 × 3 = 9	27 ÷ 3 = 9
	2 × 3 = 6	5 × 3 = 15	21 ÷ 3 = 7
	3 × 3 = 9	1 × 3 = 3	3 ÷ 3 = 1
	4 × 3 = 12	8 × 3 = 24	9 ÷ 3 = 3
3 s	5 × 3 = 15	2 × 3 = 6	30 ÷ 3 = 10
JS	6 × 3 = 18	9 × 3 = 27	24 ÷ 3 = 8
	7 × 3 = 21	7 × 3 = 21	12 ÷ 3 = 4
	8 × 3 = 24	10 × 3 = 30	6 ÷ 3 = 2
	9 × 3 = 27	6 × 3 = 18	15 ÷ 3 = 5
	10 × 3 = 30	4 × 3 = 12	18 ÷ 3 = 6

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

6.
$$\frac{15}{3} = \boxed{}$$

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

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

Study Plan

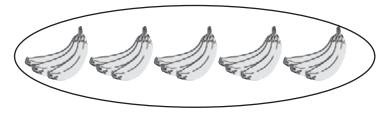
Homework Helper

Write an equation and solve the problem.

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

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

5. How many bananas are in these 9 bunches?





Remembering

Multiply or divide to find the unknown numbers.

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

Write an equation for each situation. Then solve the problem.

- **7.** The museum has 81 pictures displayed. There are 9 pictures hanging in each room. How many rooms are there?
- **8.** Brian has 10 friends at his party. He gives each friend 5 baseball cards. How many baseball cards does he give his friends?
- **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?



$$2 \times 2$$

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

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

$$\begin{array}{ccc} 2 & 7 \\ \times 7 & \times 2 \end{array}$$

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

$$10=2\times 5$$

$$10=5\times2$$

$$6=2\times 3$$

$$18=2\times9$$

$$18=9\times2$$

$$14=2\times7$$

$$3 \times 3$$

$$\begin{array}{c} 3\times 5 \\ 5\times 3 \end{array}$$

$$\begin{array}{ccc} 3 & 6 \\ \times 6 & \times 3 \end{array}$$

$$\begin{matrix} 3\times 7 \\ 7\times 3 \end{matrix}$$

$$\begin{array}{c} 3\times 9 \\ 9\times 3 \end{array}$$

$$18=3\times 6$$

$$\begin{array}{ccc} \times & 5 & \times & 3 \\ \hline 1 & 5 & 1 & 5 \\ & 5 & 6 & 6 \\ & 15 & 9 & 12 \\ & 15 & 15 & 15 \\ \end{array}$$

$$12=3\times4$$

$$16 = 4 \times 4$$

2 I 2 H 2 T

$$24=3\times 8$$

$$\begin{array}{ccc} 3 & 7 \\ \times 7 & \times 3 \end{array}$$

7

21

2 |

3。



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

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

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

$$32 = 4 \times 8$$

$$\frac{\hat{}}{28}$$
 $\frac{\hat{}}{28}$

7 14 21	4 8 12
28	16 20
	24 28

$$24=4\times 6$$

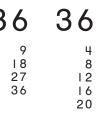
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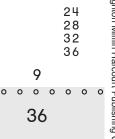
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$$35 = 5 \times 7$$

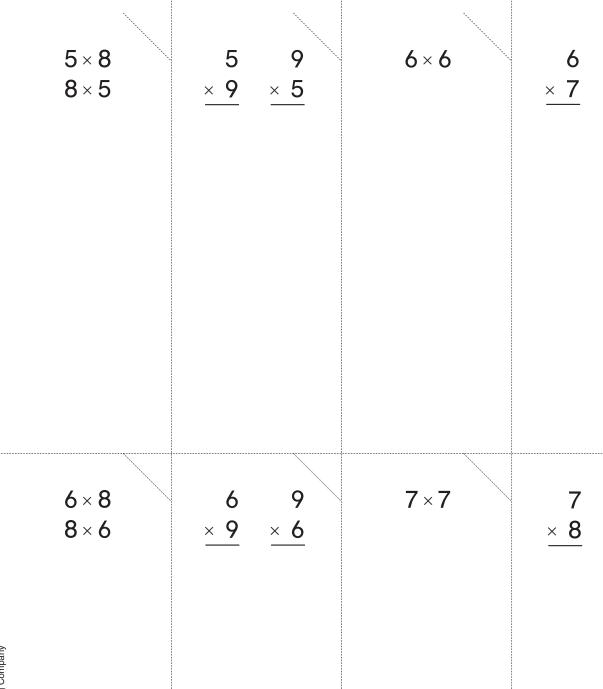
$$\begin{array}{ccc} \times & 6 & \times & 5 \\ \hline 30 & 30 & \\ & & 5 \\ & & 10 \\ & & 15 \\ & & 24 \\ & & 30 & \\ & & & 25 \\ \\ & & & & 30 \\ \end{array}$$

$$25 = 5 \times 5$$
 $\begin{array}{c} 5 \\ 10 \\ 15 \\ 20 \\ 25 \end{array}$





4 °



$$45 = 9 \times 5$$

$$45 = 5 \times 9$$

5	9
10	18
15	27
20	36
25	45
30	

$$5.6 = 7 \times 8$$

$$5.6 = 8 \times 7$$

8



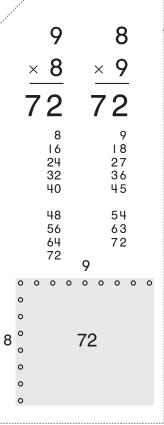
$$54 = 6 \times 9$$

6	9
12	18
18	27
24	36
3 0	Ц5

$$\frac{\times 8}{48}$$
 $\frac{\times 6}{48}$



7×9 9×7	8 × 8	9×8 8×9	9 × 9

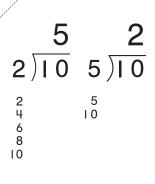


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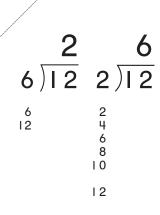
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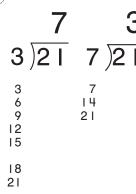
$$4 \div 2$$

$$1.4 \div 2$$

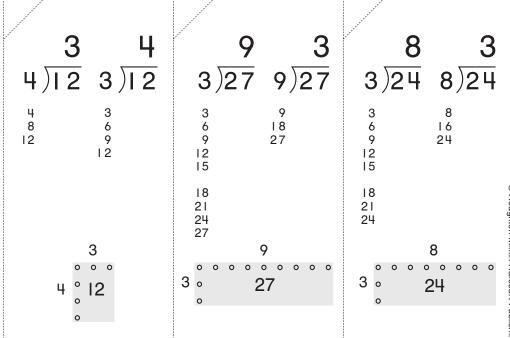


$$1.4 \div 7$$



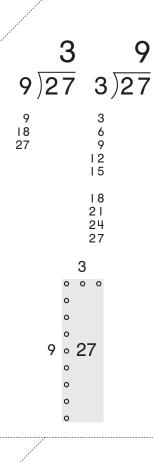


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3)12 4)12

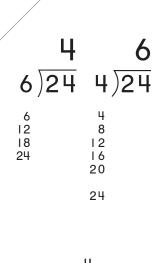
	6) I8	7)21	8)24	9)27
	I8÷6	21÷7	24÷8	27÷9
© Houghton Mifflin Harcourt Publishing Company	4)16	4)20	4)24	4)28
	16÷4	20÷4	24÷4	28÷4



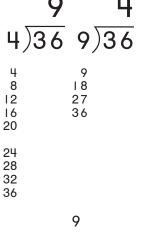


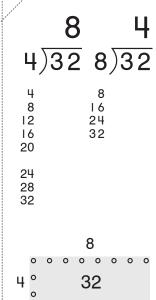


	4)32	4)36	5)20	6)24
	32÷4	36÷4	20÷5	24÷6
© Houghton Mifflin Harcourt Publishing Company	7)28	8)32	9)36	5)25
	28÷7	32÷8	36÷9	25÷5



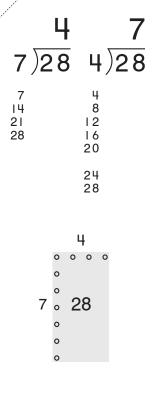
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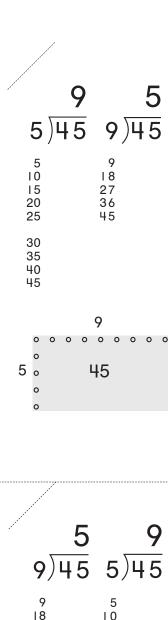


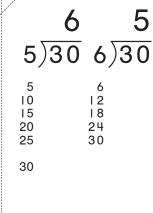
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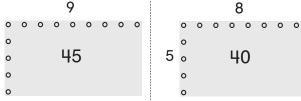
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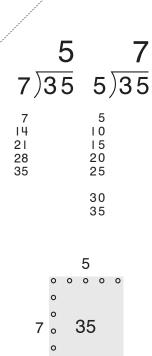


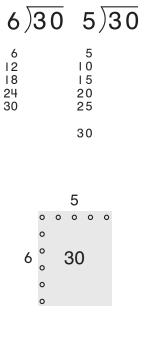
5)30	5)35	5)40	5)45
30÷5	35÷5	40÷5	45÷5
$6)30$ $30 \div 6$	7)35	8)40	9)45
	35÷7	40÷8	45÷9











6)36 36÷6 6)42 42÷6

6)48 48÷6 6)54 54÷6

7)42 42÷7 8)48

48÷8

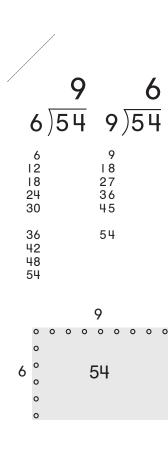
9)54

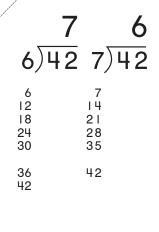
54÷9

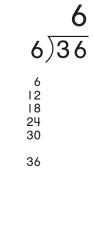
7)49

 $49 \div 7$

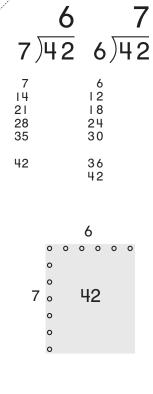
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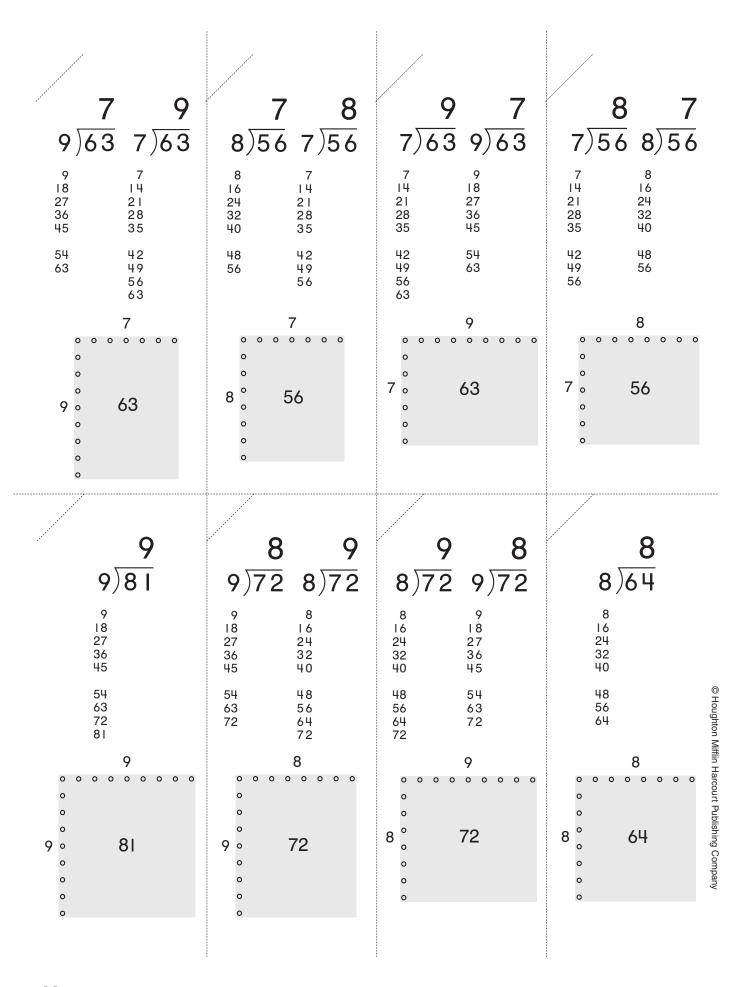








	7)56	7)63	8)56	9)63
	56÷7	63÷7	56÷8	63÷9
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	64÷8	72÷8	72÷9	81÷9



1-11 Homework

Home Study Sheet B

		4s	
Mixed Up ÷	Count-bys	Mixed Up $ imes$	Mixed Up ÷
$27 \div 3 = 9$	$1 \times 4 = 4$	$4 \times 4 = 16$	$12 \div 4 = 3$
$6 \div 3 = 2$	$2 \times 4 = 8$	$1 \times 4 = 4$	$36 \div 4 = 9$
18 ÷ 3 = 6	$3 \times 4 = 12$	$7 \times 4 = 28$	$24 \div 4 = 6$
$30 \div 3 = 10$	$4 \times 4 = 16$	$3 \times 4 = 12$	$4 \div 4 = 1$
9 ÷ 3 = 3	$5 \times 4 = 20$	$9 \times 4 = 36$	$20 \div 4 = 5$
$3 \div 3 = 1$	$6 \times 4 = 24$	$10 \times 4 = 40$	$28 \div 4 = 7$
$12 \div 3 = 4$	$7 \times 4 = 28$	$2 \times 4 = 8$	$8 \div 4 = 2$
$24 \div 3 = 8$	$8 \times 4 = 32$	$5 \times 4 = 20$	$40 \div 4 = 10$
$15 \div 3 = 5$	$9 \times 4 = 36$	$8 \times 4 = 32$	$32 \div 4 = 8$
21 ÷ 3 = 7	$10 \times 4 = 40$	$6 \times 4 = 24$	$16 \div 4 = 4$

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

0s	Mixed Up ×	$0 = 0 \times \varepsilon$	$10 \times 0 = 0$	$5 \times 0 = 0$	$0 = 0 \times 8$	$7 \times 0 = 0$	$2 \times 0 = 0$	$0 = 0 \times 6$	$0 = 0 \times 9$	$1 \times 0 = 0$	$4 \times 0 = 0$
	Count-bys	$1 \times 0 = 0$	$2 \times 0 = 0$	$3\times0=0$	$4 \times 0 = 0$	$5 \times 0 = 0$	$0 = 0 \times 9$	$7 \times 0 = 0$	$0 = 0 \times 8$	$0 = 0 \times 6$	$10 \times 0 = 0$

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9

Mixed Up

Count-bys

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

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

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

Study Plan

Homework Helper

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

1.
$$5 \times 9 =$$
 _____ **2.** $3 * 6 =$ _____ **3.** $3 \bullet 9 =$ _____

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 4
- 5. Find the area of the large rectangle by multiplying the number of rows by the number of square units in each row.
- **6.** Find this product: $5 \times 6 =$
- 7. Find this product: $2 \times 6 =$
- 8. Use your answers to exercises 6 and 7 to find this product: $7 \times 6 =$

Remembering

Multiply or divide to find the unknown numbers.

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

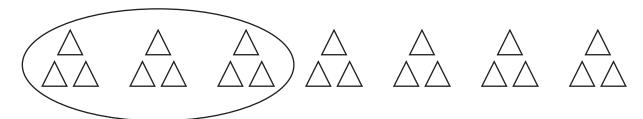
6.
$$\times 2 = 14$$

Write an equation and solve the problem.

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

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.

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
	1 × 4 = 4	9 × 4 = 36	20 ÷ 4 = 5
	2 × 4 = 8	5 × 4 = 20	4 ÷ 4 = 1
	3 × 4 = 12	7 × 4 = 28	16 ÷ 4 = 4
	4 × 4 = 16	2 × 4 = 8	36 ÷ 4 = 9
1	5 × 4 = 20	4 × 4 = 16	24 ÷ 4 = 6
4 s	6 × 4 = 24	1 × 4 = 4	12 ÷ 4 = 3
	7 × 4 = 28	6 × 4 = 24	32 ÷ 4 = 8
	8 × 4 = 32	8 × 4 = 32	8 ÷ 4 = 2
	9 × 4 = 36	3 × 4 = 12	40 ÷ 4 = 10
	10 × 4 = 40	10 × 4 = 40	28 ÷ 4 = 7

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

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

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

19.
$$\times$$
 4 = 4

1.36 2.4 3.32 4.10 5.8 6.9 7.18 8.9 9.90 10.6 11.30

4 = 10

3

6

2

1

7

8

4

9

5

1

8

2

4

9

3

5

6

7

4 = 10

Homework

Home Check Sheet 4: 3s and 4s

3s	3s	4 s	4 s		
Multiplication	Divisions	Multiplications	Divisions		
8 × 3 = 24	9 / 3 = 3	1 × 4 = 4	40 / 4 =		
3 • 2 = 6	21 ÷ 3 = 7	4 • 5 = 20	12 ÷ 4 =		
3 * 5 = 15	27 / 3 = 9	8 * 4 = 32	24 / 4 =		
10 × 3 = 30	3 ÷ 3 = 1	3 × 4 = 12	8 ÷ 4 =		
3 • 3 = 9	18 / 3 = 6	4 • 6 = 24	4 / 4 =		
3 * 6 = 18	12 ÷ 3 = 4	4 * 9 = 36	28 ÷ 4 =		
7 × 3 = 21	30 / 3 = 10	10 × 4 = 40	32 / 4 =		
3 • 9 = 27	6 ÷ 3 = 2	4 • 7 = 28	16 ÷ 4 =		
4 * 3 = 12	24 / 3 = 8	4 * 4 = 16	36 / 4 =		
3 × 1 = 3	15 / 3 = 5	2 × 4 = 8	20 / 4 =		
3 • 4 = 12	21 ÷ 3 = 7	4 • 3 = 12	4 ÷ 4 =		
3 * 3 = 9	3 / 3 = 1	4 * 2 = 8	32 / 4 =		
3 × 10 = 30	9 ÷ 3 = 3	9 × 4 = 36	8 ÷ 4 =		
2 • 3 = 6	27 / 3 = 9	1 • 4 = 4	16 / 4 =		
3 * 7 = 21	30 ÷ 3 = 10	4 * 6 = 24	36 ÷ 4 =		
6 × 3 = 18	18 / 3 = 6	5 × 4 = 20	12 / 4 =		
5 • 3 = 15	6 ÷ 3 = 2	4 • 4 = 16	40 ÷ 4 =		
3 * 8 = 24	15 ÷ 3 = 5	7 * 4 = 28	20 ÷ 4 =		
9 × 3 = 27	12 / 3 = 4	8 × 4 = 32	24 / 4 =		
2 • 3 = 6	24 ÷ 3 = 8	10 • 4 = 40	28 ÷ 4 =		

UNIT 1 LESSON 12



UNIT 1 LESSON 12 Home Check Sheet 4: 3s and 4s

Study Plan

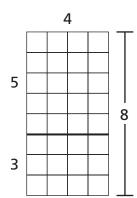
Homework Helper

Solve each problem.

- 1. Colin had 16 puzzles. He gave 4 puzzles to each of his nephews. How many nephews does Colin have?
- 2. Allegra listed the names of her classmates in 4 columns, with 7 names in each column. How many classmates does Allegra have?

This large rectangle is made up of two small rectangles.

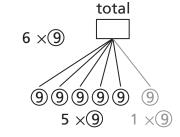
3. Find the area of the large rectangle by finding the areas of the two small rectangles and adding them.



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

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 5×9 and 1×9 , and add the answers.
- **6.** Find 6×9 Did you get the same answer as in question 5?



Multiply or divide to find the unknown numbers.

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

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

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

11. Stretch Your Thinking Explain how you can solve 8×8 if you know how to multiply with 4 but not how to multiply with 8.

Study Plan

Homework Helper

Write an equation and solve the problem.

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

3. Jon had 45 sheets of construction paper. He used 9 sheets to make paper snowflakes. How many

sheets does he have now?

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

- **4.** Find this product: $5 \times 8 =$
- **5.** Find this product: $1 \times 8 =$
- 6. Use the answers to Exercises 4 and 5

to find this product: $6 \times 8 =$

UNIT 1 LESSON 13

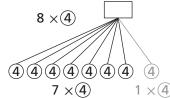
Write an equation and solve the problem.

- **1.** Tamara has 3 soccer practices each week. How many practices will she have after 7 weeks?
- 2. David has 24 items to put in bags. If he puts 3 items in each bag, how many bags does he need?

Solve each problem.

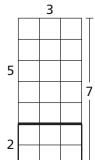
The Equal Shares drawing at the right shows that 8 groups of 4 is the same as 7 groups of 4 plus 1 group of 4.

3. Find 7×4 and 1×4 . Then add the answers.



total

- **4.** Find 8×4 . Did you get the same answer as in exercise 3?
- **5.** Find the area of the large rectangle by finding the area of the two small rectangles and adding them.



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

Study Plan

Homework Helper

Multiply or divide to find the unknown numbers.

3.
$$27 \div 9 =$$

Write an equation and solve the problem.

Show your work.

- 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?
- 11. A carousel has 40 horses. There are 4 horses in each row. How many rows are there on the carousel?
- **12.** Kevin said it is 2 weeks until his birthday. A week is 7 days. How many days is it until Kevin's birthday?

1. Find this product: $3 \times 9 =$

2. Find this product: $5 \times 9 =$

3. Use your answers to Exercises 1 and 2 to find this product: $8 \times 9 =$

Multiply or divide to find the unknown numbers.

9.
$$\frac{16}{4} =$$

10.
$$\frac{16}{2} = \boxed{}$$

Write an equation and solve the problem.

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?

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

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

	× In Order	× Mixed Up	÷ Mixed Up
	1 × 1 = 1	3 × 1 = 3	7 ÷ 1 = 7
	2 × 1 = 2	7 × 1 = 7	10 ÷ 1 = 10
	3 × 1 = 3	1 × 1 = 1	3 ÷ 1 = 3
	4 × 1 = 4	10 × 1 = 10	9 ÷ 1 = 9
4	5 × 1 = 5	6 × 1 = 6	1 ÷ 1 = 1
Is	6 × 1 = 6	2 × 1 = 2	4 ÷ 1 = 4
	7 × 1 = 7	5 × 1 = 5	5 ÷ 1 = 5
	8 × 1 = 8	8 × 1 = 8	8 ÷ 1 = 8
	9 × 1 = 9	4 × 1 = 4	2 ÷ 1 = 2
	10 × 1 = 10	9 × 1 = 9	6 ÷ 1 = 6

	× In Order	× Mixed Up
	1 × 0 = 0	3 × 0 = 0
	2 × 0 = 0	$7 \times 0 = 0$
	3 × 0 = 0	1 × 0 = 0
	4 × 0 = 0	$10\times0=0$
	5 × 0 = 0	$6 \times 0 = 0$
Us	6 × 0 = 0	$2 \times 0 = 0$
	$7 \times 0 = 0$	5 × 0 = 0
	8 × 0 = 0	8 × 0 = 0
	9 × 0 = 0	4 × 0 = 0
	10 × 0 = 0	9 × 0 = 0

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

6.
$$\frac{2}{1} = \boxed{}$$

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

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

22.
$$\times$$
 5 = 25

Study Plan

Homework Helper

Complete.

1.
$$3 \times (4 \times 2) =$$
 2. $(5 \times 2) \times 8 =$

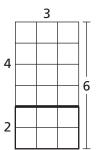
Write an equation and solve the problem.

- 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. 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?
- 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? _
- 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?

UNIT 1 LESSON 15

Solve each problem.

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



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

Write an equation and solve the problem.

- 3. Dwight has 72 pennies in a jar. He takes out9 pennies. How many pennies are in the jar now?
- **4.** There are 3 soccer bags. Each bag has 7 soccer balls. How many soccer balls are there in all?

Multiply or divide to find the unknown numbers.



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

10.
$$\div$$
 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.

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?
- 2. The Watertown science contest allowed teams of 5 students to compete. If 45 students entered the contest, how many teams competed?
- 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?
- **4.** Una has 5 goldfish. She bought 2 small water plants for each goldfish. How many plants did she buy?
- **5.** Yolanda made 16 barrettes. She divided the barrettes equally among her 4 friends. How many barrettes did each friend get?
- 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?

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

- **1.** Find this product: $3 \times 7 =$
- **2.** Find this product: $4 \times 7 =$
- 3. Use the answers to Exercises 1 and 2 to find this product: $7 \times 7 =$

Write an equation and solve the problem.

Show your work.

- **4.** Susan buys 9 packages of cups. There are 8 cups in each package. How many cups does she buy altogether?
- **5.** The football team has 30 players. The players line up to exercise with 5 in each row. How many rows are there?
- **6.** Bill scored 63 points on his video game. He gets 9 points for each level he completes. How many levels did he complete?

Complete.

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

Date

Homework

Home Check Sheet 5: 1s and 0s

1s	1s	0s
Multiplications	Divisions	Multiplications
1 × 4 = 4	10 / 1 = 10	4 × 0 = 0
5 • 1 = 5	5 ÷ 1 = 5	2 • 0 = 0
7 * 1 = 7	7 / 1 = 7	0 * 8 = 0
1 × 8 = 8	9 ÷ 1 = 9	0 × 5 = 0
1 • 6 = 6	3 / 1 = 3	6 • 0 = 0
10 * 1 = 10	10 ÷ 1 = 10	0 * 7 = 0
1 × 9 = 9	2 / 1 = 2	0 × 2 = 0
3 • 1 = 3	8 ÷ 1 = 8	0 • 9 = 0
1 * 2 = 2	6 / 1 = 6	10 * 0 = 0
1 × 1 = 1	9 / 1 = 9	1 × 0 = 0
8 • 1 = 8	1 ÷ 1 = 1	0 • 6 = 0
1 * 7 = 7	5 / 1 = 5	9 * 0 = 0
1 × 5 = 5	3 ÷ 1 = 3	0 × 4 = 0
6 • 1 = 6	4 / 1 = 4	3 • 0 = 0
1 * 1 = 1	2 ÷ 1 = 2	0 * 3 = 0
1 × 10 = 10	8 / 1 = 8	8 × 0 = 0
9 • 1 = 9	4 ÷ 1 = 4	0 • 10 = 0
4 * 1 = 4	7 ÷ 1 = 7	0 * 1 = 0
2 × 1 = 2	1 / 1 = 1	5 × 0 = 0
1 • 3 = 3	6 ÷ 1 = 6	7 • 0 = 0

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

3s, 4s, 0s, 1s Multiplications					
5	×	3	=	15	
6	•	4	=	24	
9	*	0	=	0	
7	×	1	=	7	
3	•	3	=	9	
4	*	7	=	28	
0	×	10	=	0	
1	•	6	=	6	
3	*	4	=	12	
5	×	4	=	20	
0	•	5	=	0	
9	*	1	=	9	
2	×	3	=	6	
3	•	4	=	12	
0	*	9	=	0	
1	×	5	=	5	
2	•	3	=	6	
4	*	4	=	16	
9	×	0	=	0	
1	•	1	=	1	

	· · ·			
3s Mu		s, 0 olic		
0	×	5	=	0
10	•	1	=	10
6	*	3	=	18
2	×	4	=	8
5	•	0	=	0
1	*	2	=	2
10	×	3	=	30
5	•	4	=	20
0	*	8	=	0
6	×	3	=	18
10	•	3	=	30
9	*	4	=	36
1	×	0	=	0
1	•	6	=	6
3	*	6	=	18
7	×	4	=	28
6	•	0	=	0
8	*	1	=	8
3	×	9	=	27
4				4

• 4 =

4

			. 1s	
			ons	
18	/	3	=	6
20	•	4	=	5
1	/	1	=	1
21	•	3	=	7
12	/	4	=	3
5	•	1	=	5
15	/	3	=	5
24	•	4	=	6
7	/	1	=	7
12	/	3	=	4
36	•	4	=	9
6	/	1	=	6
12	•	3	=	4
16	/	4	=	4
7	•	1	=	7
9	/	3	=	3
8	÷	4	=	2
2	•	1	=	2
6	/	3	=	2
32	•	4	=	8

3s, 4s, 1s Divisions				
4	/	1	=	4
21	÷	3	=	7
16	/	4	=	4
9	•	1	=	9
15	/	3	=	5
8	•	4	=	2
5	/	1	=	5
30	•	3	=	10
12	/	4	=	3
8	/	1	=	8
27	•	3	=	9
40	/	4	=	10
4	÷	1	=	4
9	/	3	=	3
16	<u>.</u>	4	=	4
10	/	1	=	10
9	÷	3	=	3
20	÷	4	=	5
6	/	1	=	6
24	•	3	=	8

Homework Helper

Write an equation and solve the problem.

- 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?
- 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?
- **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?
- **4.** Yan took photographs at the zoo. He took 5 photos in each of the 6 animal houses. How many photos did he take?
- **5.** Janie stacked some books at the library. She stacked 6 books each in 7 different piles. How many books were in the piles?

Multiply or divide to find the unknown numbers.

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

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?

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?
- 6. John buys 4 bags of apples. There are 6 apples in each bag. How many apples does John buy?
- 7. Stretch Your Thinking Write a word problem that can be solved using the array shown.

Study Plan

Homework Helper

Write an equation and solve the problem.

- 1. Maili rode her bike 10 miles every day for 5 days. How many miles did she ride?
- 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?
- 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?
- **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?
- **5.** At the Shady Acres Stables, there are 5 horses in each barn. There are 4 barns. How many horses are at Shady Acres?
- **6.** Sixty students are in the marching band. There are 10 rows of students. How many students are in each row?
- 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?
- 8. There are 9 players on a baseball team. There are 6 teams in the league. How many baseball players are in the league?

Complete.

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

2.
$$24 \times 1 =$$
 3. $(9 \times 1) \times 5 =$

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?
- **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?

Write an equation and solve the problem.

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?
- 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.

Find the number.

1. I am 5 more than 6 times 10. What number am I? _____

2. I am 3 less than 8 times 4. What number am I? _____

3. 7 times a number is 21. What is the number? _____

4. 9 times a number is 18. What is the number? _____

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

Hobbies		
Coin Collecting		
Playing Sports		
Playing Music		
Taking Care of Pets		
	Each = 4 third graders	

Date

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 2. Sangeeta has two dogs. She buys box has the same number of toys. How many toys are in each box?
 - 2 collars for each of her dogs. How many collars does she buy?

Write an equation and solve the problem.

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

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Date

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

Name

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

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

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

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

19.
$$\times$$
 7 = 0

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

Study Plan

Homework Helper

Find the unknown number.

2.
$$\times$$
 7 = 42

4.
$$\div$$
 6 = 8

6.
$$\div$$
 6 = 5

Solve each problem.

- 7. Tim has 6 cats and 4 birds for pets. How many pets does Tim have?
- 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?
- 9. Jing charges \$7 for each lawn she mows. Last week, she mowed 6 lawns. How much money did she earn from mowing lawns?
- 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?
- 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?
- 12. Kendall arranged her pennies in an array with 6 rows and 6 columns. How many pennies does Kendall have?

Multiply or divide to find the unknown numbers.

Write an equation and solve the problem.

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?

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?
- **6.** Evan has 5 notebooks. There are 4 dividers in each notebook. How many dividers are in the notebooks?
- 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.

Mixed Up ÷

Home Study Sheet C

7s	Mixed Up $ imes$	$6 \times 7 = 42$	$8 \times 7 = 56$	$5 \times 7 = 35$	$9 \times 7 = 63$	$4 \times 7 = 28$	$10 \times 7 = 70$	$3 \times 7 = 21$	$1 \times 7 = 7$	7 × 7 = 49	$2 \times 7 = 14$
	Count-bys	1 × 7 = 7	$2 \times 7 = 14$	$3 \times 7 = 21$	$4 \times 7 = 28$	$5 \times 7 = 35$	$6 \times 7 = 42$	7 × 7 = 49	$8 \times 7 = 56$	$9\times7=63$	$10 \times 7 = 70$
	Mixed Up ÷	$54 \div 6 = 9$	$30 \div 6 = 5$	$12 \div 6 = 2$	$60 \div 6 = 10$	$48 \div 6 = 8$	$9 = 9 \div 98$	$6 \div 6 = 1$	$42 \div 6 = 7$	$18 \div 6 = 3$	$24 \div 6 = 4$
6 S	Mixed Up ×	$09 = 9 \times 01$	8 × 6 = 48	$2 \times 6 = 12$	$6 \times 6 = 36$	$4 \times 6 = 24$	1 × 6 = 6	$9 \times 6 = 54$	3 × 6 = 18	$7 \times 6 = 42$	$5 \times 6 = 30$
	Count-bys	9	9 ×		9 ×	∥ 9 ×		9 ×	×	$9 \times 6 = 54$	$10\times 6=60$

	squares	
Count-bys	Mixed Up ×	Mixed Up ÷
$1 \times 1 = 1$	$3 \times 3 = 9$	$25 \div 5 = 5$
$2 \times 2 = 4$	$9 \times 9 = 81$	$4 \div 2 = 2$
3 × 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 × 7 = 49	$100 \div 10 = 10$
$7 \times 7 = 49$	$10 \times 10 = 100$	$16 \div 4 = 4$
$8 \times 8 = 64$	1 × 1 = 1	$49 \div 7 = 7$
$9 \times 9 = 81$	$5 \times 5 = 25$	1 ÷ 1 = 1
$10 \times 10 = 100$	8 × 8 = 64	$64 \div 8 = 8$

	Mixed Up ÷	$16 \div 8 = 2$	$40 \div 8 = 5$	$72 \div 8 = 9$	$32 \div 8 = 4$	8 ÷ 8 = 1	$80 \div 8 = 10$	$64 \div 8 = 8$	$24 \div 8 = 3$	$56 \div 8 = 7$	$48 \div 8 = 6$
85	imes Mixed Up $ imes$	$6 \times 8 = 48$	$10 \times 8 = 80$	$7 \times 8 = 56$	$2 \times 8 = 16$	$4 \times 8 = 32$	$8 \times 8 = 64$	$5 \times 8 = 40$	$10 \times 8 = 80$	$3 \times 8 = 24$	$1 \times 8 = 8$
	Count-bys	$1 \times 8 = 8$	$2 \times 8 = 16$	$3 \times 8 = 24$	$4 \times 8 = 32$	$5 \times 8 = 40$	$6 \times 8 = 48$	$7 \times 8 = 56$	$8 \times 8 = 64$	$9 \times 8 = 72$	$10 \times 8 = 80$

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

6.
$$\frac{30}{10} = \boxed{}$$

8.
$$\frac{48}{6} = \boxed{}$$

14.
$$\frac{6}{6} = \boxed{}$$

19.
$$\times$$
 2 = 10

Study Plan

Homework Helper

Complete each Unknown Number puzzle.

1.

×			6
9	36		
2			
	12	9	

2.

×	7		6
	28		24
6		30	
	56		48

3.

×			4
5		30	
7	56	42	
			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?
- 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?
- 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?
- 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?

Complete.

1.
$$3 \times (5 \times 1) =$$
 2. $(2 \times 5) \times 3 =$

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?

Solve each problem.

- 8. Brian buys 6 video games. They cost \$10 each. How much does he spend on the video games?
- **9.** Sharon plants 48 rose bushes. Each row has 6 rose bushes. How many rows of rose bushes does Sharon plant?
- 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?



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
	1 × 8 = 8	3 × 8 = 24	40 ÷ 8 = 5
	2 × 8 = 16	9 × 8 = 72	56 ÷ 8 = 7
	3 × 8 = 24	6 × 8 = 48	24 ÷ 8 = 3
	4 × 8 = 32	4 × 8 = 32	72 ÷ 8 = 9
8 s	5 × 8 = 40	2 × 8 = 16	8 ÷ 8 = 1
03	6 × 8 = 48	8 × 8 = 64	48 ÷ 8 = 6
	7 × 8 = 56	1 × 8 = 8	32 ÷ 8 = 4
	8 × 8 = 64	5 × 8 = 40	64 ÷ 8 = 8
	9 × 8 = 72	10 × 8 = 80	16 ÷ 8 = 2
	10 × 8 = 80	7 × 8 = 56	80 ÷ 8 = 10

Home Check Sheet 7: 6s and 8s

		6s				
Multiplications						
10	×	6	=	60		
6	•	4	=	24		
6	*	7	=	42		
2	×	6	=	12		
6	•	5	=	30		
6	*	8	=	48		
9	×	6	=	54		
6	•	1	=	6		
6	*	6	=	36		
6	×	3	=	18		
6	•	6	=	36		
5	*	6	=	30		
6	×	2	=	12		
4	•	6	=	24		
6	*	9	=	54		
8	×	6	=	48		
7	•	6	=	42		
6	*	10	=	60		
1	×	6	=	6		
_		_		2.4		

6s							
	Div	isions					
24	/	6 = 4					
48	•	6 = 8					
60	/	6 = 10					
12	•	6 = 2					
42	/	6 = 7					
30	•	6 = 5					
6	/	6 = 1					
18	•	6 = 3					
54	/	6 = 9					
36	/	6 = 6					
48	•	6 = 8					
12	/	6 = 2					
24	•	6 = 4					
60	/	6 = 10					
6	÷	6 = 1					
42	/	6 = 7					
18	•	6 = 3					
36	÷	6 = 6					
30	/	6 = 5					

 $54 \div 6 = 9$

8s Multiplications							
2		8	= 16				
8	•	10	= 80				
3	*	8	= 24				
9	×	8	= 72				
8	•	4	= 32				
8	*	7	= 56				
5	×	8	= 40				
8	•	6	= 48				
1	*	8	= 8				
8	×	8	= 64				
4	•	8	= 32				
6	*	8	= 48				
8	×	3	= 24				
7	•	8	= 56				
8	*	2	= 16				
8	×	9	= 72				
8	•	1	= 8				
8	*	8	= 64				
10	×	8	= 80				
5	•	8	= 40				

8s						
	Div	ISIC	ons			
72	/	8	= 9			
16	÷	8	= 2			
40	/	8	= 5			
8	÷	8	= 1			
80	/	8	= 10			
48	•	8	= 6			
56	/	8	= 7			
24	÷	8	= 3			
64	/	8	= 8			
32	/	8	= 4			
80	÷	8	= 10			
56	/	8	= 7			
8	÷	8	= 1			
24	/	8	= 3			
64	÷	8	= 8			
16	/	8	= 2			
72	÷	8	= 9			
32	÷	8	= 4			
40	/	8	= 5			

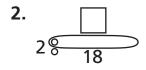
 $4 \cdot 6 = 24$

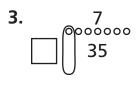
 $48 \div 8 = 6$

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?
- 5. There are 6 players on a volleyball team. How many players are in a game with 2 teams?
- **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?
- 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?

Write an equation and solve the problem.

Show your work.

1. There are 0 tickets available. There are 6 people in line to purchase tickets. How many tickets did they purchase?

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)
- for the hardware store. Each box has 10 hammers. How many hammers does Owen order?
- 2. Owen orders 9 boxes of 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?

Complete each Unknown Number puzzle.

4.

×		5	
	12		36
6			
2	6		

5.

•	×	2		6
			45	
	3		27	
			63	42

1	×		7	3
		20		15
	9		63	
		24		

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?

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?

2. Mrs. Divita divided 64 beetles equally among the 8 students in the science club. How many beetles did each student receive?

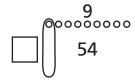
equal groups area array multiplication division

equal groups area array multiplication division

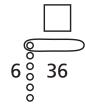
- **3.** Write your own problem that is the same type as Problem 1.
- 4. Write your own problem that is the same type as Problem 2.



5.



7.



Write an equation and solve the problem.

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?
- 2. Chris sets up 8 chairs in each row. He sets up 7 rows. How many chairs does Chris set up?
- 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?
- 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?

Find the unknown number for each Fast Array Drawing.

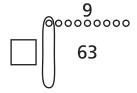
5.



6.



7.



8. Stretch Your Thinking Write a real world problem and equation using t = 5.



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
	1 × 7 = 7	5 × 7 = 35	56 ÷ 7 = 8
	2 × 7 = 14	1 × 7 = 7	42 ÷ 7 = 6
	3 × 7 = 21	10 × 7 = 70	14 ÷ 7 = 2
	4 × 7 = 28	2 × 7 = 14	7 ÷ 7 = 1
7 s	5 × 7 = 35	9 × 7 = 63	70 ÷ 7 = 10
	6 × 7 = 42	3 × 7 = 21	49 ÷ 7 = 7
	7 × 7 = 49	8 × 7 = 56	21 ÷ 7 = 3
	8 × 7 = 56	4 × 7 = 28	$35 \div 7 = 5$
	9 × 7 = 63	7 × 7 = 49	63 ÷ 7 = 9
	10 × 7 = 70	6 × 7 = 42	28 ÷ 7 = 4

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

2.
$$\frac{64}{8}$$
 =

6.
$$\frac{48}{6} = \boxed{}$$

20.
$$\frac{10}{2} = \boxed{}$$

1.49 2.8 3.25 4.4 5.3 6.8 7.7 8.8 9.3 10.40 11.7 1.49 2.8 3.25 4.4 5.3 6.8 7.7 8.8 9.3 10.40 11.7

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?
- **8.** Shondra has 21 tropical fish. If she divides them evenly among 3 tanks, how many fish will be in each tank?
- **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.

Write an equation and solve the problem.

Show your work.

- 1. Sara picks 48 apples. She puts 6 apples in each basket. How many baskets does she fill?
- 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?
- 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?
- 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?

Solve. Then circle what type it is and what operation you used.

- **5.** The area of the paper is 80 square **6.** The desks are in 6 rows, with inches. If the width of the paper is 8 inches, what is its length?
 - 5 desks in each row. How many desks are in the classroom?

equal groups equal groups area array area array multiplication division multiplication division

7. Stretch Your Thinking Write a word problem using 7 groups. Solve your problem.

Home Check Sheet 8: 7s and Squares

7s Multiplications	7s Divisions	Squares Multiplications	Squares Divisions
4 × 7 = 28	14 / 7 = 2	8 × 8 = 64	81 / 9 = 9
7 • 2 = 14	28 ÷ 7 = 4	10 • 10 = 100	4 ÷ 2 = 2
7 * 8 = 56	70 / 7 = 10	3 * 3 = 9	25 / 5 = 5
7 × 7 = 49	56 ÷ 7 = 8	9 × 9 = 81	1 ÷ 1 = 1
7 • 1 = 7	42 / 7 = 6	4 • 4 = 16	100 / 10 = 10
7 * 10 = 70	63 ÷ 7 = 9	7 * 7 = 49	36 ÷ 6 = 6
3 × 7 = 21	7 / 7 = 1	5 × 5 = 25	49 / 7 = 7
7 • 6 = 42	49 ÷ 7 = 7	6 • 6 = 36	9 ÷ 3 = 3
5 * 7 = 35	21 / 7 = 3	1 * 1 = 1	64 / 8 = 8
7 × 9 = 63	35 / 7 = 5	5 * 5 = 25	16 / 4 = 4
7 • 4 = 28	7 ÷ 7 = 1	1 • 1 = 1	100 ÷ 10 = 10
9 * 7 = 63	63 / 7 = 9	3 • 3 = 9	49 / 7 = 7
2 × 7 = 14	14 ÷ 7 = 2	10 ×10 = 100	1 ÷ 1 = 1
7 • 5 = 35	70 / 7 = 10	4 × 4 = 16	9 / 3 = 3
8 * 7 = 56	21 ÷ 7 = 3	9 * 9 = 81	64 ÷ 8 = 8
7 × 3 = 21	49 / 7 = 7	2 × 2 = 4	4 / 2 = 2
6 • 7 = 42	28 ÷ 7 = 4	6 * 6 = 36	81 ÷ 9 = 9
10 * 7 = 70	56 ÷ 7 = 8	7 × 7 = 49	16 ÷ 4 = 4
1 × 7 = 7	35 / 7 = 5	5 • 5 = 25	25 / 5 = 5
7 • 7 = 49	42 ÷ 7 = 6	8 • 8 = 64	36 ÷ 6 = 6

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

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

11.
$$\frac{32}{4} = \boxed{}$$

17.
$$\frac{81}{9} =$$

57. 9

18: 35

6.5 7.72 8.4 9.49

16. 24

7 .2

© Houghton Mifflin Harcourt Publishing Company **23.** 4 8.4 8.E

71. 6

20. 56

01 .**61**

Study Plan

Homework

Homework Helper

Write a multiplication equation for each square array.

1.



2.



3.



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?
- 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?
- 6. Lehie has 21 crystals in her collection. Her brother Tomer has 7 crystals. How many more crystals does Lehie have than Tomer?
- 7. Emmanuel collected 49 leaves last week. He collected the same number of leaves each day. How many leaves did he collect on Monday?

Complete.

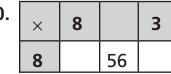
8.

×	6	4	
	24		32

9.

×		4	
9	45		81

10.



Write an equation and solve the problem.

Show your work.

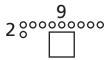
- 1. There are 5 birch trees in each row at the nursery. There are 9 rows of birch trees. How many birch trees are in the nursery?
- **2.** There are 54 dictionaries in the library. There are 6 shelves of dictionaries. Each shelf has the same number of dictionaries. How many dictionaries are on each shelf?
- **3.** Samuel orders 6 boxes of robots for his store. There are 4 robots in each box. How many robots does Samuel order?
- **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?

Find the unknown number for each Fast Array Drawing.

5.



6



7.



8. Stretch Your Thinking Explain two different squares that can be made using the number 9.

Home Check Sheet 9: 6s, 7s, and 8s

6s, 7s, and 8s Multiplications	6s, 7s, and 8s Multiplications Divisions	6s, 7s, and 8s Divisions		
1 × 6 = 6	0 × 8 = 0 24 / 6 = 4	54 / 6 = 9		
6 • 7 = 42	6 • 2 = 12 21 ÷ 7 = 3	24 ÷ 8 = 3		
3 * 8 = 24	4 * 7 = 28 16 / 8 = 2	14 / 7 = 2		
6 × 2 = 12	8 × 3 = 24 24 ÷ 8 = 3	32 ÷ 8 = 4		
7 • 5 = 35	5 • 6 = 30 14 / 7 = 2	18 / 6 = 3		
8 * 4 = 32	7 * 2 = 14 30 ÷ 6 = 5	56 ÷ 7 = 8		
6 × 6 = 36	3 × 8 = 24 35 / 7 = 5	40 / 8 = 5		
8 • 7 = 56	6 • 4 = 24 24 ÷ 8 = 3	35 ÷ 7 = 5		
9 * 8 = 72	0 * 7 = 0 18 / 6 = 3	12 / 6 = 2		
6 × 10 = 60	8 × 1 = 8 12 / 6 = 2	21 / 7 = 3		
7 • 1 = 7	8 • 6 = 48 42 ÷ 7 = 6	16 ÷ 8 = 2		
8 * 3 = 24	7 * 9 = 63 56 / 8 = 7	42 / 6 = 7		
5 × 6 = 30	10 × 8 = 80 49 ÷ 7 = 7	80 ÷ 8 = 10		
4 • 7 = 28	6 • 10 = 60 16 / 8 = 2	36 / 6 = 6		
2 * 8 = 16	3 * 7 = 21 60 ÷ 6 = 10	7 ÷ 7 = 1		
7 × 7 = 49	8 × 4 = 32 54 / 6 = 9	64 / 8 = 8		
7 • 6 = 42	6 • 5 = 30 8 ÷ 8 = 1	24 ÷ 6 = 4		
8 * 8 = 64	7 * 4 = 28 28 ÷ 7 = 4	21 ÷ 7 = 3		
9 × 6 = 54	8 × 8 = 64 72 / 8 = 9	49 / 7 = 7		
10 • 7 = 70	6 • 9 = 54 56 ÷ 7 = 8	24 ÷ 8 = 3		

			nd ons	
54	/	6	=	9
24	•	8	=	3
14	/	7	=	2
32	•	8	=	4
18	/	6	=	3
56	•	7	=	8
40	/	8	=	5
35	•	7	=	5
12	/	6	=	2
21	/	7	=	3
16	•	8	=	2
42	/	6	=	7
80	•	8	=	10
36	/	6	=	6
7	•	7	=	1
64	/	8	=	8
24	•	6	=	4
21	•	7	=	3
49	/	7	=	7

Home Check Sheet 10: 0s-10s

Mu	0s–10s Multiplications				
9	×	0	=	0	
1	•	1	=	1	
2	*	3	=	6	
1	×	3	=	3	
5	•	4	=	20	
7	*	5	=	35	
6	×	9	=	54	
4	•	7	=	28	
1	*	8	=	8	
9	×	8	=	72	
2	•	10	=	20	
0	*	7	=	0	
4	×	1	=	4	
2	•	4	=	8	
10	*	3	=	30	
8	×	4	=	32	
5	•	8	=	40	
4	*	6	=	24	
7	×	6	=	42	
1	•	8	=	8	

Home Check S				
NALI		5–10 olica		anc.
IVIU	ıcı	JIIC	ativ	J113
9	×	4	=	36
5	•	9	=	45
6	*	10	=	60
7	×	3	=	21
5	•	3	=	15
4	*	1	=	4
7	×	5	=	35
6	•	3	=	18
8	*	7	=	56
5	×	8	=	40
9	•	9	=	81
9	*	10	=	90
0	×	0	=	0
1	•	0	=	0
1	*	6	=	6
7	×	2	=	14
6	•	3	=	18
4	*	5	=	20
6	×	6	=	36
10	•	7	=	70

eet	IU:	<u>US-</u>	-10	
		–10 visio		
9	/	1	=	9
12	•	3	=	4
14	/	2	=	7
20	•	4	=	5
10	/	5	=	2
48	•	8	=	6
35	/	7	=	5
60	•	6	=	10
81	/	9	=	9
20	/	10	=	2
16	•	2	=	8
30	/	5	=	6
49	•	7	=	7
60	/	6	=	10
30	•	3	=	10
8	/	1	=	8
16	•	4	=	4
16	•	8	=	2
40	/	10	=	4
36	•	9	=	4

0s–10s Divisions					
90	/	10	=	9	
64	÷	8	=	8	
15	/	5	=	3	
12	÷	6	=	2	
14	/	7	=	2	
45	÷	9	=	5	
8	/	1	=	8	
30	•	3	=	10	
16	/	4	=	4	
8	/	2	=	4	
80	÷	10	=	8	
36	/	4	=	9	
25	•	5	=	5	
42	/	7	=	6	
36	•	6	=	6	
90	/	9	=	10	
24	•	8	=	3	
6	÷	2	=	3	
9	/	3	=	3	
1	•	1	=	1	

Study Plan

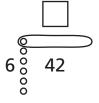
Homework Helper

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?
- 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?
- **3.** Lucy has 6 sheets of stickers. Each sheet has 8 stickers. How many stickers does Lucy have?
- **4.** A park ranger led 3 groups of hikers. There were 7 people in each group. How many hikers did she lead?

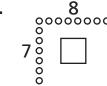
Find the unknown number for each Fast-Array.

5.



6.

7.

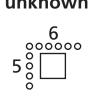


Write an equation and solve the problem.

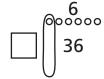
- 1. Adam has 60 plates. He places 10 plates on each table. How many tables does Adam place plates on?
- 2. Hailey draws 35 leaves on her tree. She draws 5 leaves on each branch. How many branches are on her tree?

Find the unknown number for each Fast Array Drawing.

3.



4.



5.



Write a multiplication equation for each array.





6. _____

7. _____

8.

9. Stretch Your Thinking Draw a picture to show 7×7 .

Study	Plan
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Homework Helper

Write an equation to solve the problem.

- 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?
- **2.** Arturo collected 18 seashells. He wants to divide the seashells evenly among his 3 best friends. How many seashells will each friend receive?

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	0000
Saturday	000000
Sunday	

Key: ① = 6 pumpkins

- 3. How many pumpkins did Katie sell on Friday?
- **4.** How many more pumpkins did she sell on Saturday than on Friday?
- 5. How many pumpkins did Katie sell this weekend?

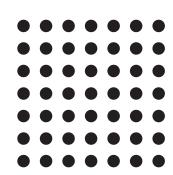
UNIT 2 LESSON 8

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?
- 2. Jared has 40 stars. He puts the same number of stars in each of 5 rows. How many stars are in each row?

Write a multiplication equation for each array.







Solve.

- **6.** Amanda has 8 boxes of markers. **7.** Alex has 7 shirts. He sews Each box has 7 markers. How many markers in all are in the boxes?
- 6 buttons on each shirt. How many buttons does Alex sew on the shirts?

8. Stretch Your Thinking Write a word problem with 16 for the product.

Study Plan	
	Homework Helper

Write an equation and solve the problem.

- 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?
- 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?
- 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?
- 4. Arnon earned \$27 delivering newspapers last week. He spent\$9 on a book about snakes. How much money does he have left?

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: ______ Solution: ____

6. Richard folded 32 shirts and stacked them in 4 equal piles.

Question:

___ Solution: ____

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?
- 2. There are 9 vases. Each vase has 3 flowers. How many flowers in all are in the vases?

Find the unknown number for each Fast Array Drawing.

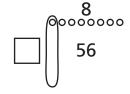
3.



4.



5



Write an equation to solve the problem.

Show your work.

- **6.** The principal buys 20 new games. He divides them evenly among the 4 third grade classes. How many games does each class receive?
- 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. Stretch Your Thinking Cecelia says she can use addition to solve multiplication problems. Is Cecelia correct? Explain.

Study	Plan
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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?
- 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?

- 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?
- 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?
- **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?

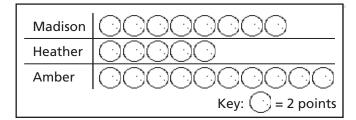
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Write an equation and solve the problem.

- 1. A toy store owner gives 47 balloons to his customers. He has 7 balloons left. How many balloons did he start with?
- 2. There are 7 rows of sunflowers in the garden. There are 9 sunflowers in each row. How many sunflowers are in the garden?

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?
- **4.** How many more points did Madison score than Heather?

- **5.** Rita has 90 pages in her notebook. She uses 39 pages. How many pages are left in her notebook?
- 6. Matt earns \$10 for each lawn he mows. How many lawns would he need to mow to earn \$80?
- **7. Stretch Your Thinking** Write an equation using subtraction and multiplication in which the answer is 36.

Study Plan

Homework Helper

Write an equation and solve the problem.

- 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?
- 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?
- 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?
- 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?
- 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?

UNIT 2 LESSON 11

Write an equation and solve the problem.

- 1. Lily has 24 classmates. She gives each classmate 1 pencil. How many pencils in all does she give her classmates?
- 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?

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: _____

Solution:

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?
- **5. Stretch Your Thinking** Write a two step word problem that uses multiplication and subtraction. Then solve the two step problem.

Study Plan

Homework Helper

Use a basic multiplication and mental math to complete.

- 16. Tom bought 3 packages of cards with 20 cards in each package. How many cards did Tom buy altogether?
- 17. An orchard has 30 rows of apple trees. There are 3 trees in each row. How many apple trees are in the orchard?

Write an equation and solve the problem.

- 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?
- 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?

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?
- 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?

- **5.** Leanne has 50 red and 22 yellow chenille sticks. She needs 8 chenille sticks for each craft. How many crafts can she make?
- 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?
- **7. Stretch Your Thinking** Write three multiplication equations in which the product will have two zeros. Use 50 as one of the factors.

Study Plan

Homework Helper

- 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?
- 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?
- 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?
- 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?
- 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?
- 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?

Write an equation and solve the problem.

- 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?
- 2. Claire puts \$2 in her coin purse each day for 7 days. How much money is in her coin purse after 7 days?

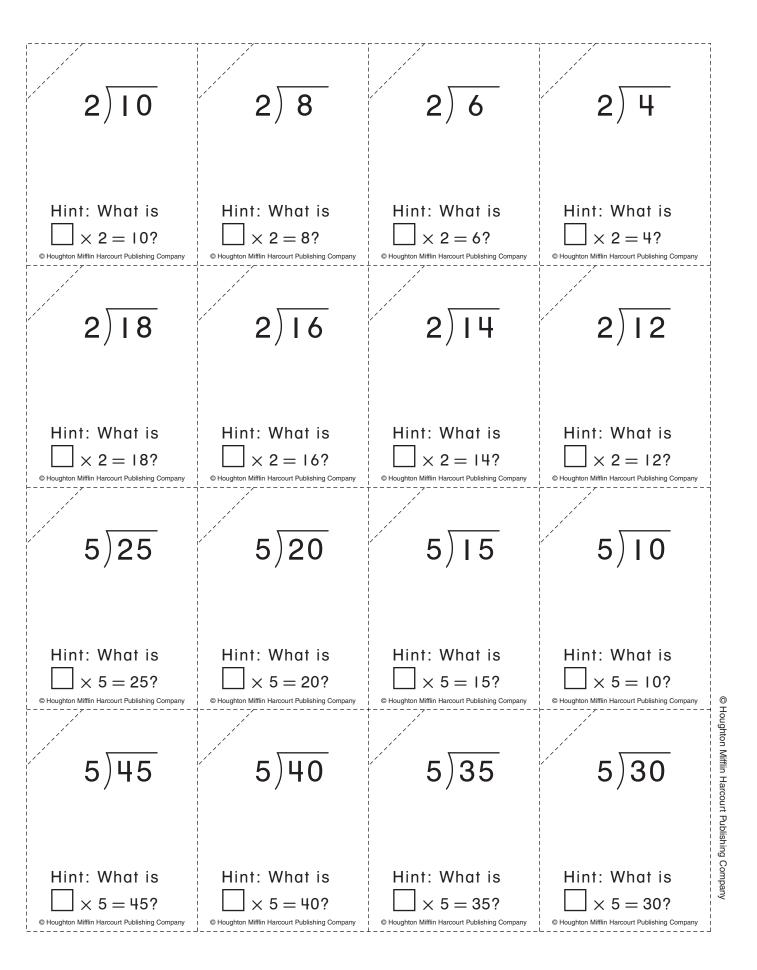
Write an equation and solve the problem.

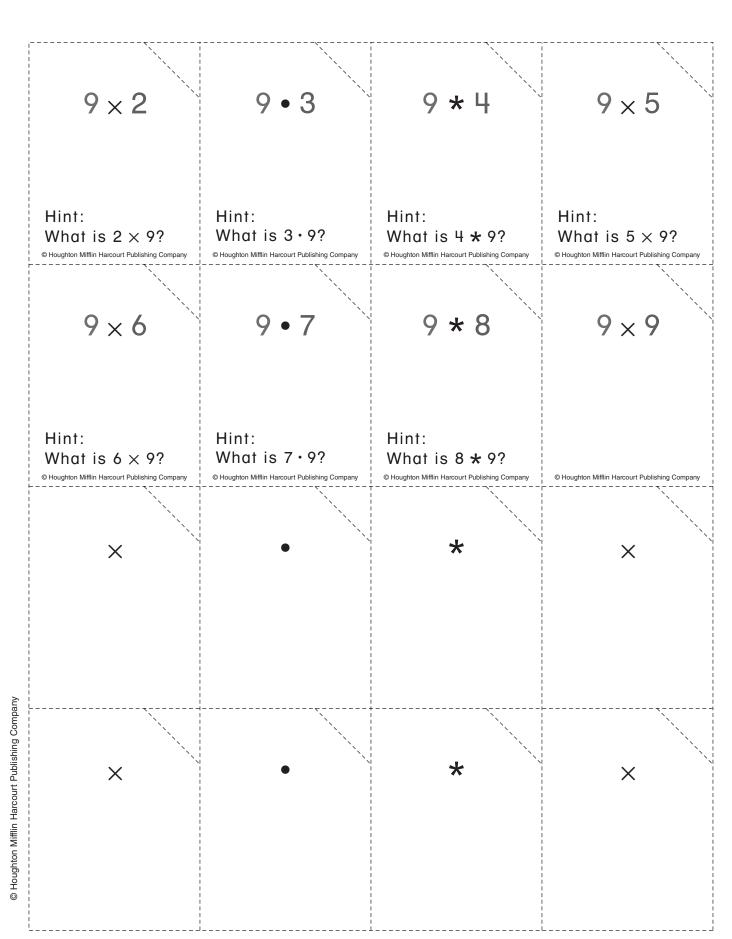
- 3. There are 4 rows of carrots in the garden.Six carrots are in each row. The farmer picks3 of the carrots. How many carrots are still in the garden?
- **4.** Darla uses 3 pink roses and 4 yellow tulips to fill each vase. She fills 7 vases. How many flowers does she use?

Use a basic multiplication and mental math to complete.

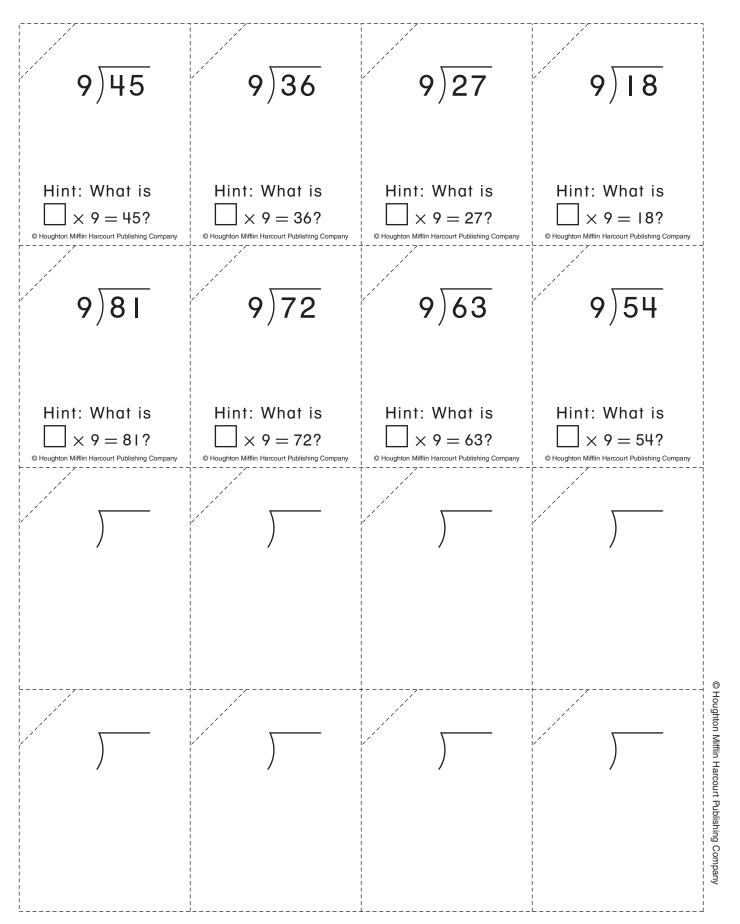
14. Stretch Your Thinking I am a multiple of 10. My factors include an even number and an odd number. I am greater than 3 × 5 and less than 4 × 7. What number am I?

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	2×2	2 • 3	2 * 4	2×5
	Houghton Mifflin Harcourt Publishing Company	Hint: What is 3 • 2? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 4 ★ 2? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 5×2 ? © Houghton Mifflin Harcourt Publishing Company
	2×6	2•7	2 * 8	2×9
	Hint: What is 6×2 ? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 7 • 2? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 8 * 2? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 9 × 2? © Houghton Mifflin Harcourt Publishing Company
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© Houghton Mifflin Harcourt Publishing Company	5 × 6	5 • 7	5 * 8	5 × 9
© Houghton M	Hint: What is 6×5 ? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 7 • 5? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 8 * 5? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 9×5 ? $_{\odot}$ Houghton Mifflin Harcourt Publishing Company



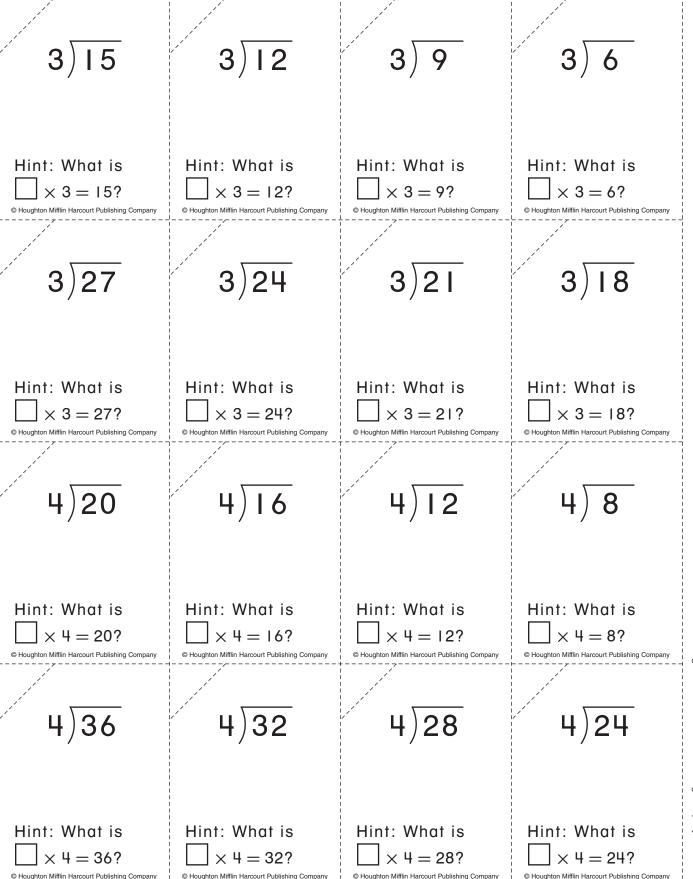


You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.



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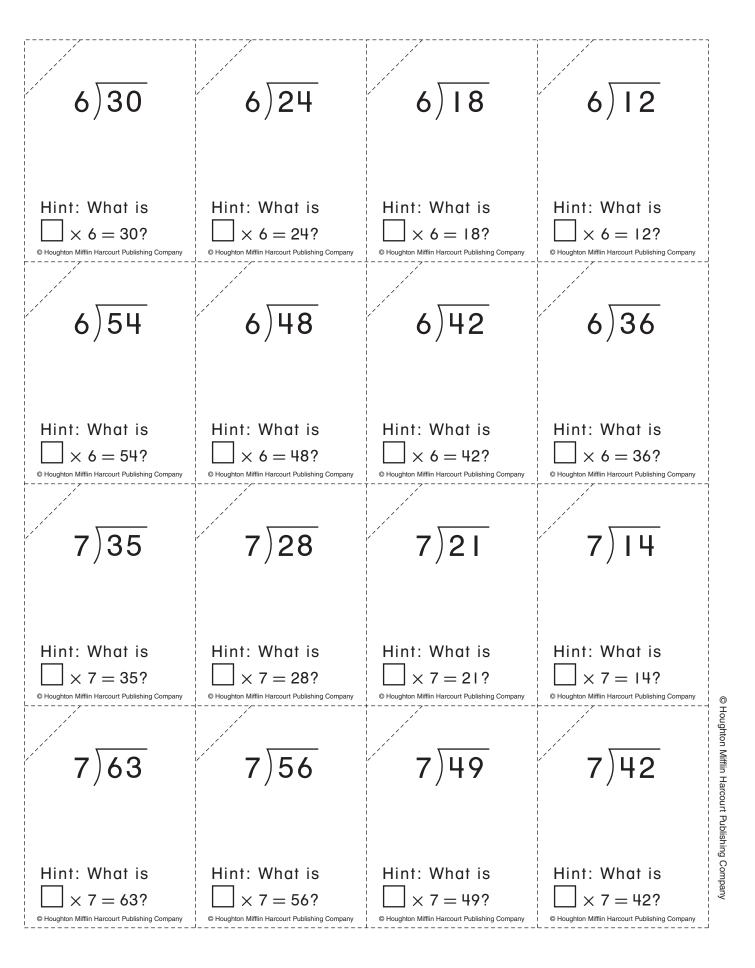
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	Hint: What is 6×3 ?	Hint: What is 7·3?	Hint: What is 8 * 3?	Hint: What is 9×3 ?
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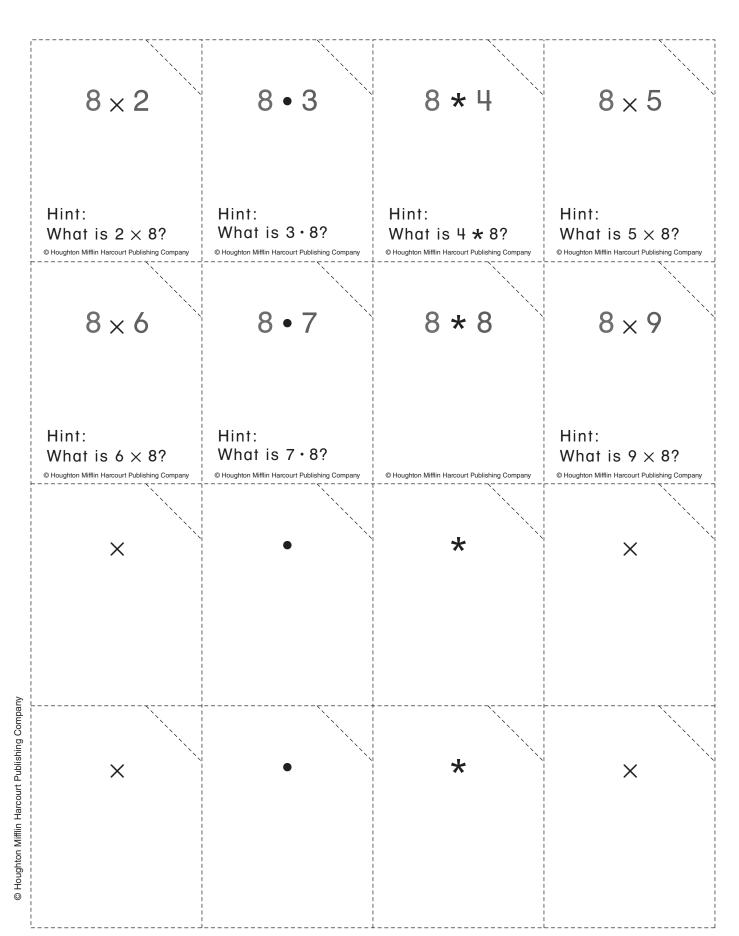


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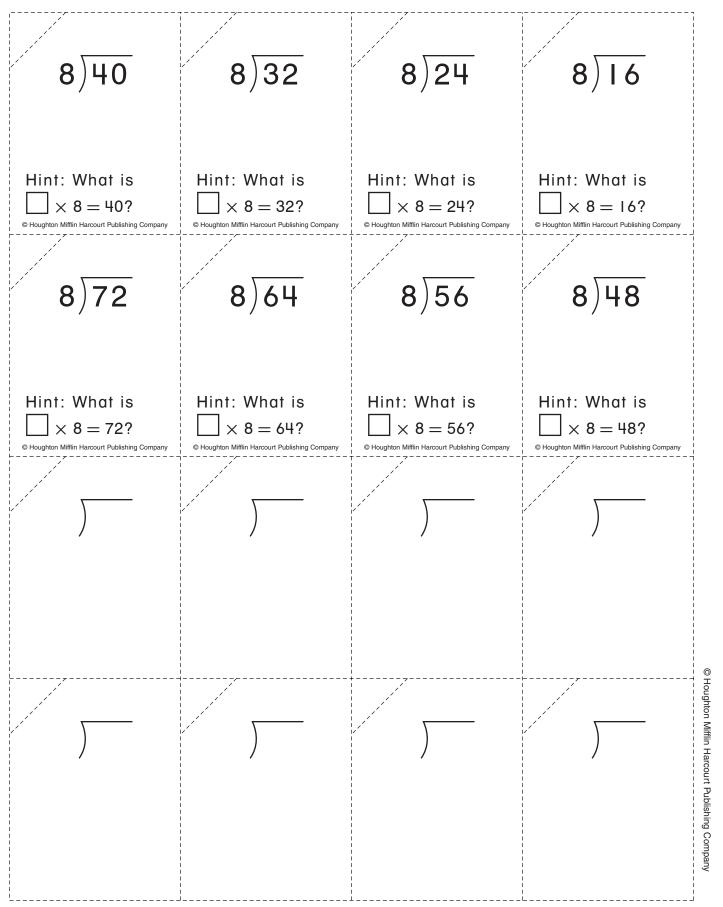
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Hint: What is 2×6 ? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 3 · 6? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 4 * 6? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 5×6 ? © Houghton Mifflin Harcourt Publishing Company
6 × 6	6•7	6 * 8	6 × 9
Houghton Mifflin Harcourt Publishing Company	Hint: What is 7 • 6? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 8 * 6? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 9 × 6? © Houghton Mifflin Harcourt Publishing Company
7 × 2	7 • 3	7 * 4	7 × 5
Hint: What is 2×7 ? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 3.7? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 4 ★ 7? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 5 × 7? © Houghton Mifflin Harcourt Publishing Company
7×6	7 • 7	7 * 8	7 × 9
Hint: What is 6 × 7? © Houghton Mifflin Harcourt Publishing Company	Houghton Mifflin Harcourt Publishing Company	Hint: What is 8 * 7? © Houghton Mifflin Harcourt Publishing Company	Hint: What is 9×7 ? © Houghton Mifflin Harcourt Publishing Company

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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.

Study Plan

Homework Helper

Complete.

9. ____
$$\div$$
 8 = 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?
- **20.** Pablo wrote four division equations with 6 as the quotient. What could have been the four division equations that he wrote?

Write an equation and solve the problem.

- 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?
- 2. There are 6 birdcages at the zoo. Two birds are in each birdcage. How many birds are in the birdcages?

Use a basic multiplication and mental math to complete.

6.
$$6 \times 4 =$$

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?
- 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?
- **14. Stretch Your Thinking** Write three multiplication equations in which the product is 24. Then draw an array for one of your equations.



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.

1. 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							56

2. Write an equation to show how to find the number of pounds of bananas the zoo uses in one day.

Write an equation and solve the problem.

- **3.** The zoo uses 10 pounds of apples each day. How many pounds of apples should be on the weekly grocery list?
- **4.** After 6 days, how many pounds of apples does the zoo use?
- **5.** After 6 days, how many more pounds of apples than bananas does the zoo use?
- **6.** How many pounds of bananas and apples altogether does the zoo use each week?

UNIT 2 LESSON 15

Write an equation and solve the problem.

- 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?
- 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?

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.
- 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?

Complete.

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?

Estimate the length of the line segment in inches.

Then measure it to the nearest inch.

1.

Estimate: _____ Actual:



Estimate the length of the line segment in inches. Then measure it to the nearest $\frac{1}{2}$ inch.

2. Estimate: _____ Actual:

Estimate the length of each line segment in inches. Then measure it to the nearest $\frac{1}{4}$ inch.

3.

Estimate: _____ Actual: _____

4. Estimate: Actual:

Draw a line segment that has the given length.

- 5. 4 inches
- **6**. $3\frac{1}{4}$ inches
- **7**. $4\frac{1}{2}$ inches
- **8**. $\frac{3}{4}$ 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.

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Solve each equation.

Solve each problem.

10. Tommy buys 6 notebooks. They cost \$3 each. How much does he spend?

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?

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?

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?

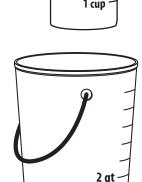
14. Stretch Your Thinking Grace has a piece of string that is 8 inches long. She needs to cut the string into four equal pieces, but she does not have a ruler. Explain a way Grace can cut the string into four equal pieces.

Choose the best unit to measure how much each item can hold. Write *cup*, *pint*, *quart*, or *gallon*.

- 1. a bathtub _____
- 2. a container of orange juice _____
- **3**. a juice box _____
- 4. a small milk carton _____

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?
- 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?



Solve. Use drawings if you need to.

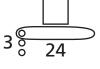
- 7. Mrs. Sanders buys 2 gallons of milk each week. How many gallons of milk will she buy in 10 weeks?
- **9.** Brian's aquarium holds 16 gallons of water. He uses 2-gallon containers of water to fill the aquarium. How many containers does he use?
- 8. Brianna bought 64 fluid ounces of her favorite drink. How many 8 fluid-ounce glasses can she fill with the drink?
- 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?

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

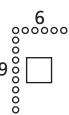
- 1. Coach Stevens puts 6 cones in each row for physical education class. He makes 4 rows. How many cones does Coach Stevens use?
- 2. Emily puts stickers in 8 bags, with 5 stickers per bag. How many stickers does Emily use?

Find the unknown number for each Fast Array drawing.

3.



4



5.



Estimate the length of the line segment in inches. Then measure it to the nearest $\frac{1}{2}$ inch.

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i			i
-			
i	1	inch	i
1		inch	- 1

Estimate: _____ Actual: _____

8. Stretch Your Thinking Write a word problem in which the answer is 6 gallons.

1 liter (L) = 1,000 milliliters (mL)

Circle the better estimate.

1. a container of milk 2 L 20 mL

3. an eyedropper 1 L or 1 mL

2. a cup of punch 25 L 250 mL

4. a jar of pickles 50 L 500 mL

Choose the unit you would use to measure the liquid volume of each. Write *mL* or *L*.

5. a container of glue _____

6. an aquarium _____

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?
- 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?



Solve.

UNIT 3 LESSON 3

- 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?

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?

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?
- **3.** The band lines up in 8 rows, with 6 band members in each row. How many band members are there in all?

array equal groups area array equal groups area 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?



5. Stretch Your Thinking Write a word problem that involves subtracting 4 liters. Then solve. Draw a picture to represent your answer.

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Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.

1.



2.



3.



Choose the unit you would use to measure the mass of each object. Write *gram* or *kilogram*.

4.



5.



6.



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?
- **12.** Beth bought a bag filled with 340 grams of pasta. She used 250 grams. How many grams are left in the bag?
- 13. There are 8 books in a box.Each book has a mass of2 kilograms. What is thetotal mass of the books?
- 14. Roy bought a 25-pound bag and a 10-pound bag of pet food. How many pounds of pet food did he buy?

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?
- **2.** Mrs. Rak's class has 35 students. Seven students sit at each table. How many tables of students are there?

Multiply or divide to find the unknown numbers.

7.
$$\frac{49}{7} = \boxed{}$$

8.
$$\times$$
 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?



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?



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.

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?
- 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?
- 3. An average sized duck egg has a mass of 80 grams. What would be the mass of three duck eggs?
- **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?
- **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?
- 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.

Multiply or divide to find the unknown numbers.

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

6.
$$\times$$
 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?

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?

Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.

9.



10.



11.



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.

Write the time on the digital clock. Then write how to say the time.

1.



•

2.



•

3.



4.



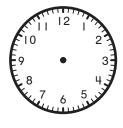
Draw the hands on the anolog clock. Write the time on the digital clock.

5. twenty-eight minutes after four





6. six forty-five





7. quarter to seven





Write the time on the digital clock. Then write how to say the time.

8.





9.





10.



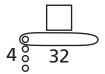
•	
•	J
	* *

Write an equation and solve the problem.

- 1. The pet store has 7 aquariums. There are 9 fish in each aquarium. How many fish in all are in the aquariums?
- 2. Declan has 81 dollar bills. He puts them in piles of 9. How many piles does he make?

Find the unknown number for each Fast Array drawing.

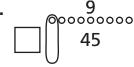
3.



4



5.



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?
- **7.** Harper fills 3 pots each with 4 liters of water. How many liters of water does he pour into the pots?
- **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?

Write the times as minutes *after* an hour and minutes *before* an hour.

1.



2.



3.



4.



5.



6.



7.



8.



9.



Multiply or divide to find the unknown numbers.

1.
$$\frac{36}{9} =$$

Write an equation to solve the problem.

7. Antonio is planting bean seeds. He puts 6 seeds in each row. There are 5 rows. How many bean seeds does he plant?

8. The baker made 56 fresh baked muffins. There are 8 muffins in each tin. How many tins did he use?

Write the time on the digital clock. Then write how to say the time.

9.



10.



:



12.



13. Stretch Your Thinking List five different times in which the minutes before are the same as the minutes after the hour.

Complete.

1. Complete the table.

Start Time	Elapsed Time	End Time
2:00 р.м.		10:00 р.м.
2:27 а.м.		4:45 а.м.
3:30 а.м.	1 hour and 22 minutes	
2:10 р.м.	3 hours and 16 minutes	
	2 hours and ten minutes	11:00 а.м.
	4 hours and 39 minutes	7:53 р.м.

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?
- **3.** Andres spent from 4:15 P.M. to 5:05 P.M. doing chores. How much time did Andres spend doing his chores?
- **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?
- **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?

Multiply or divide to find the unknown numbers.

1.
$$\frac{30}{3} = \boxed{}$$

Write an equation and solve the problem.

7. There are 36 students at the show. They sit in 4 equal rows. How many seats are in each row?

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?

Write the times as minutes *after* an hour and minutes *before* an hour.

9.



10.



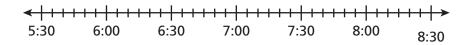
11.



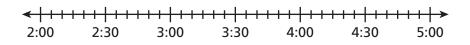
12. Stretch Your Thinking Write a word problem where something starts at 8:25 A.M. and ends at 1:43 P.M.

Solve using a number line.

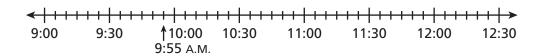
1. Terry began watching a movie at 5:45 P.M. The movie lasted 2 hours 20 minutes. Then Terry spent 25 minutes eating a snack. What time did Terry finish eating the snack?



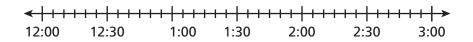
2. Evan left his friend's house at 5:00 P.M. He had been there 2 hours 15 minutes. At what time did Evan arrive at his friend's house?



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?



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

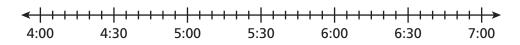
Write the first step question and answer. Then solve the problem.

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?

5. Compete the table.

Start Time	Elapsed Time	End Time
9:32 а.м.	1 hour 23 minutes	
1:19 р.м.		5:37 р.м.
	2 hours 45 minutes	7:31 р.м.

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.



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?
- 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?
- **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?
- **4.** Jerry finished skating at 7:00 P.M. He skated for 1 hour 45 minutes. What time did he start skating?
- **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?

Solve each problem.

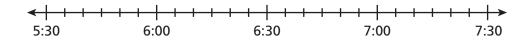
Show Your Work

1. The farmer makes stacks of 4 bales of hay. He makes 6 stacks. How many bales of hay does he stack?

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?

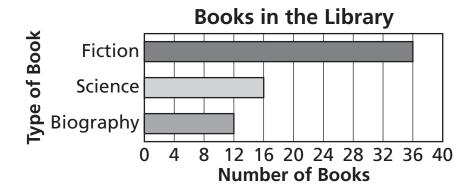
Solve.

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?



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?

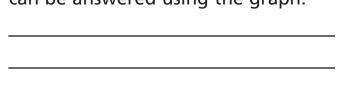
Use the horizontal bar graph to answer each question.



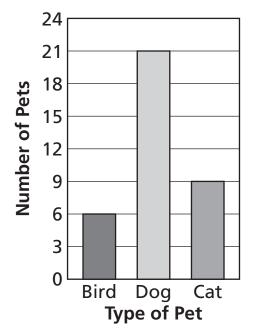
- **1.** How many fiction books are in the library? _____
- 2. How many more science books are there than biographies? _____
- 3. Write two of your own questions that can be answered using the graph.

Use the vertical bar graph to answer each question.

- 4. How many cats and dogs are at the kennel?
- **5.** The kennel has the fewest of which type of pet? _____
- **6.** Write two of your own questions that can be answered using the graph.



Pets at the Kennel



Multiply or divide.

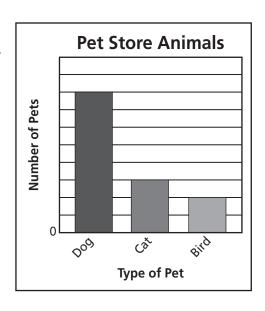
4.
$$\frac{8}{2} =$$

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?

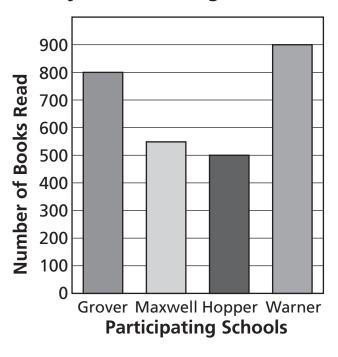
Solve. Use a clock or sketch a number line diagram to help you.

- 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?
- 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.



Use the vertical bar graph to answer the questions.

Sunnytown Reading Festival

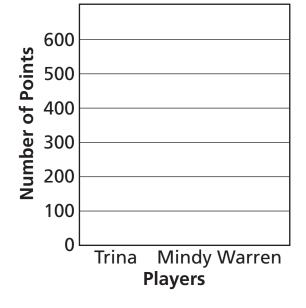


- 1. About how many books did students at Maxwell School read?
- 2. How many more books did students at Grover School read than students at Hopper School?
- 3. How many fewer books did students at Hopper School read than students at Warner School?
- 4. How many more books did the students at Maxwell need to read to have the same number of books as Warner?
- **5.** Use the information in this table to make a vertical bar graph.

Pinball Scores

Player	Points
Trina	500
Mindy	350
Warren	200



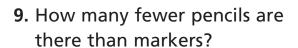


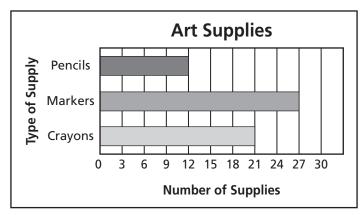
Multiply or divide to find the unknown numbers.

Use the horizontal bar graph to answer each question.

7. How many markers are there?

8. How many more crayons are there than pencils?





10. Write your own question that can be answered using the graph.

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.

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.

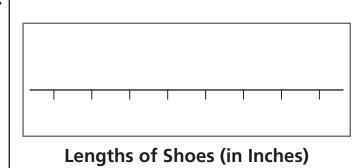
1. [

Tally Chart			
Length	Tally		

Frequency Table			
Length	Tally		

Use the data above to make a line plot.

2.



Use the data displays to answer the questions.

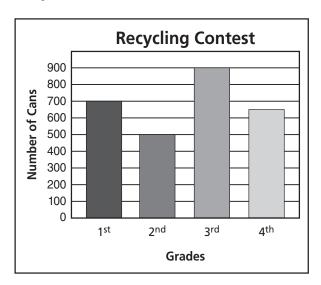
- 3. What is the length of the shortest shoe?
- ____
- **4.** What is the length of the longest shoe?
- ____
- 5. Which length appears the most often?
- **6.** Write a question that can be answered using the data displayed on the line plot.

Complete.

5.
$$5 \times 9 = 9 \times \boxed{} = \boxed{}$$
 6. $(9 + 1) \times 3 = \boxed{}$

Use the vertical bar graph to answer the questions.

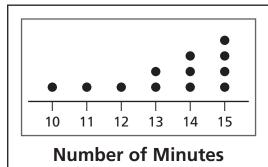
- 7. How many more cans did the 3rd grade collect than the 2nd grade? __
- 8. How many fewer cans did the 2nd grade collect than the 1st grade? _
- 9. About how many more cans would the 4th grade have to collect to have the same number as the grade with the most cans?



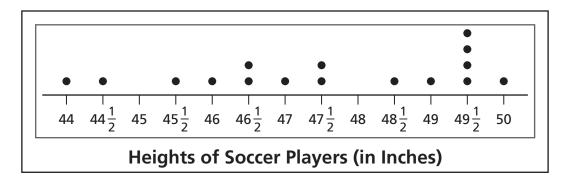
10. Stretch Your Thinking You need to find how many people drew a picture in less than 12 minutes. Which data display is easier to use to find the answer? Explain.

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		





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. What is the difference in height between the tallest player on the team and the shortest player?
- 3. What is the most frequent height?
- 4. How many players are on the soccer team?
- **5.** Are there more players $47\frac{1}{2}$ inches **6.** How many more players are tall and greater or less than $47\frac{1}{2}$ inches tall?
 - $49\frac{1}{2}$ inches than $46\frac{1}{2}$ inches

Write an equation and solve the problem.

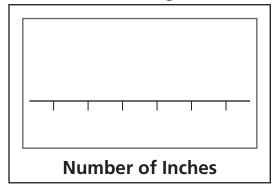
- Jon used 1-foot square tiles to cover his bathroom floor.
 The bathroom is 8 feet long and 10 feet wide. How many tiles did he use to cover his floor?
- 2. The principal buys 42 red cups and 21 blue cups. She puts 7 cups on each table. How many tables will have cups?

Use the data below to make a line plot.

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	

Pencil Lengths



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.

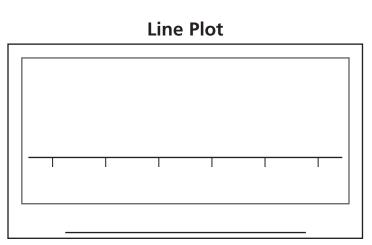
Measure the length of a smile of 10 different people to the nearest $\frac{1}{2}$ inch.

1. Record the lengths in the box below.

!	
!	

2. Organize the measurement data in a frequency table and a line plot.

Frequency Table	
Length	Tally



3. Describe what your line plot shows.

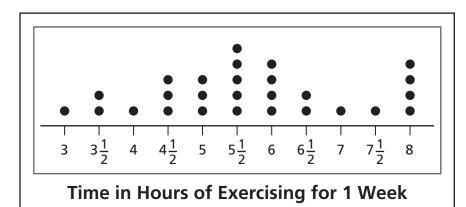
UNIT 3 LESSON 15

Write an equation and solve the problem.

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?

Complete.

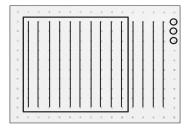
Use the line plot to solve the problems.



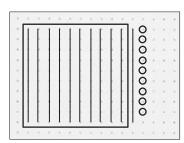
- 5. How many people exercised for 6 hours?
- **6.** Did more people exercise less than 5 hours or more than 6 hours?
- **7. Stretch Your Thinking** What can you conclude about the data in the line plot?

Write the number for each dot or place value drawing.

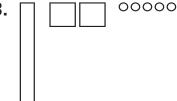
1.



2.



3.





Make a place value drawing for each number.

5. 431

6. 1,214

Write the number for the words.

7. one thousand, sixty

8. four thousand, three hundred

9. ninety-seven

10. four hundred fifty-four

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

Solve each problem.

- **3.** Sam has 6 toy spiders. Each spider has 8 legs. How many legs are there in all?
- **4.** Ms. Adams spends \$42. She buys books that cost \$6 each. How many books does she buy?

Find the unknown number for each Fast Array drawing.

5. 6 ° 30

7. 4

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.

Write the number.

1. 300 + 20 + 4 = _____

2. 500 + 40 + 3 = _____

3. 800 + 50 + 2 = _____

4. 600 + 70 = _____

5. 900 + 5 = _____

6. 1,000 + 50 = _____

7. 7 hundreds + 6 tens + 5 ones = ______

8. 3 hundreds + 5 tens + 6 ones = _____

9. 4 hundreds + 3 ones = _____

10. 2 hundreds + 7 tens = _____

11. 6 hundreds + 2 tens = _____

12. 2 thousands + 9 tens + 8 ones = _____

Write the number in expanded form in two ways.

13. 272

14. 420

15. 585

16. 604

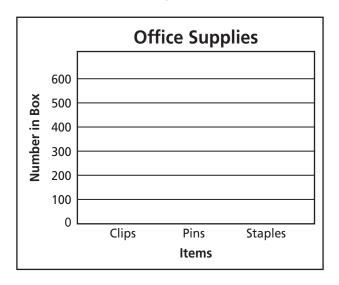
17. 732

18. 2,107

Use the information in this table to make a vertical bar graph.

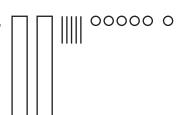
Office Supplies 1.

Items	Number in
	Вох
Clips	400
Pins	250
Staples	300

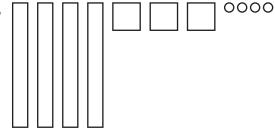


Write the number for each place value drawing.

2.



3.



4. Stretch Your Thinking Anton says 2,000 + 300 + 70 + 5is the same as 23 hundreds + 7 tens + 5 ones. Is he correct? Explain.

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?

A farmer had 612 tomatoes. He put them in baskets of 100.

2. How many baskets did he fill completely?

3. How many tomatoes were left over?

At the library, Eric is placing 112 books on shelves. Each shelf holds 10 books.

4. How many shelves can Eric fill completely?

5. How many books will be left over?

Write the number for the words.

- 6. one hundred sixty-seven ______ 7. eighty-two _____
- 8. one hundred twenty _____ 9. fifteen _____
- **10.** four thousand, one hundred six ______
- 11. one thousand, ninety-nine _____

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?
- 2. Toby has all his cars in 7 rows. There are 5 cars in each row. How many cars does he have?

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?

array repeated groups area multiplication division

Write the number.

- **6.** 2 hundreds + 6 tens + 7 ones = -
- 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.

Unscramble the place values and write the number.

1.
$$5 \text{ hundreds} + 0 \text{ ones} + 8 \text{ tens}$$

2.
$$2 \text{ ones} + 1 \text{ ten} + 7 \text{ hundreds}$$

3. 9 hundreds
$$+$$
 0 tens $+$ 8 ones

4.
$$7 \text{ tens} + 7 \text{ hundreds} + 3 \text{ ones}$$

5.
$$3 \text{ tens} + 1 \text{ one} + 2 \text{ hundreds}$$

6.
$$3 \text{ ones} + 2 \text{ hundreds} + 9 \text{ tens}$$

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?

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?

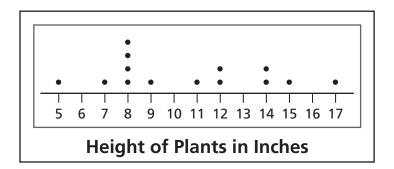
9. How many raisins will be left over?

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?

11. How many tickets will she have left?

Use the line plot to answer the questions.



- **1.** What height appears the most often?
- 2. How many plants are there?
- **3.** How many plants are 14 inches tall?
- **4.** How many plants are 14 inches or taller?

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?
- 6. How many books are left over?
- **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.*

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?
- **2.** So far, Ms. Sahid has read 177 pages of her 392-page book. About how many pages does she have left to read?
- 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?

Round each number to the nearest hundred.

Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.

10.
$$24 + 107 = 217$$

11.
$$512 - 479 = 33$$

12.
$$485 - 312 = 362$$

13.
$$1,201 + 179 = 1,380$$

15.
$$712 - 392 = 320$$

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. The pitcher holds 8 cups of juice. Mr. Raj pours 3 cups into glasses. How many cups are in the pitcher now?



Unscramble the place values and write the number.

- 3. 5 ones + 7 tens + 1 hundred
- 4. 4 tens + 3 hundreds + 8 ones
- 5. 9 hundreds + 2 ones + 6 tens
- 6. 2 tens + 8 ones + 5 hundreds
- 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.

adults _____ and students _____

adults _____ and students ____

adults _____ and students _____

adults _____ and students _____

Round each number to the nearest ten.

1. 907 _____

Homework

2. 75 _____

3. 196 _____

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.
- 5. Estimate how many students bought lunch by rounding each number to the nearest ten.
- 6. Find the total number of students who bought lunch. Which of your estimates is closer to the actual total? Explain.

7. Draw a figure on a sheet of paper. Estimate how many pennies will fit inside the figure. Check your prediction using pennies.

Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.

8.
$$57 - 39 = 81$$

9.
$$143 - 74 = 69$$

9.
$$143 - 74 = 69$$
 10. $155 + 36 = 161$

Add or subtract.

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?
- **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?

Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.

9.
$$1,385 + 115 = 1,500$$

12.
$$983 - 442 = 541$$

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.

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?
- 2. South Elementary School has 537 students. North Elementary School has 386 students. How many students do the schools have altogether?

Unscramble the place values and write the number.

Choose the unit you would use to measure the weight of each object. Write ounce or pound.

1.



2.



3.



Choose the unit you would use to measure the mass of each object. Write *gram* or *kilogram*.

4.



5.



6.



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.
- **8.** Estimate how many animals the zoo has by rounding each number to the nearest ten.
- **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.

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?
- 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?
- **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?

Write each addition vertically. Line up the places correctly and add. Make a proof drawing to show your answer is correct.

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?
- 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?

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?
- **4.** 525 + 346 = _____
- 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.

Write each addition vertically. Decide which new groups you will make. Then, add to see if you were correct.

A new ten? ____

A new hundred? _____

A new ten? _____

A new hundred? _____

A new ten? _____

A new hundred? _____

A new thousand? _____

Add.

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?

Estimate the length of the line segment in inches. Then measure it to the nearest inch.

1.

1 inch

Estimate: _____

Actual: _____

Estimate the length of the line segment in inches. Then measure it to the nearest $\frac{1}{2}$ inch.

2.

Estimate: _____

Actual: _____

3.

Estimate: _____

Actual: _____

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?
- 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.

Explain how you chose your numbers.



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.

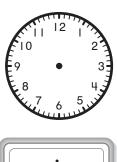
- 1. What is the combined weight of the two smallest saltwater fish in the table?
- 2. The total weight for which two fish is 913 pounds?
- **3.** The total for which two fish is about 820 pounds?
- **4.** The total weight for which two fish is about 700 pounds?
- **5.** The weight of which two fish rounds to the same number?

Draw the hands on the analog clock. Write the time on the digital clock.

1. quarter after five



2. forty-eight minutes 3. ten thirty after seven





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? _____

A new hundred? _____

5. 479 + 380

A new ten? _____

A new hundred? _____

6. Stretch Your Thinking Write three different addition equations that have a sum of 834 and require at least one new group.

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 sold63 bracelets. How many bracelets did she have left?
- 2. Ms. Chao collects buttons. She had 382 buttons, but sold 57 of them to other collectors. How many buttons does she have left?
- **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?

Subtract. Show your ungroupings. Make proof drawings if you need to.

UNIT 4 LESSON 11

Add or subtract.

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?
- 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.?

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?

Show Your Work

- **5.** What is the total number of sales for the two pets with the least numbers of sales?
- 6. Stretch Your Thinking Compare and contrast an addition place value drawing and a subtraction place value drawing.

Subtract. Show your ungroupings. Use proof drawings if you need to.

Solve each problem.

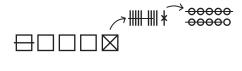
- 7. The school cafeteria holds 200 students.
 Mr. Thompson's class has 22 students who eat lunch in the cafeteria. How many more students can still eat in the cafeteria when Mr. Thompson's class has lunch?
- **8.** The school library has 300 books on the topic of sports. Students have checked out seventy-four of those books. How many books on the topic of sports still remain in the library?
- **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?

Complete the table.

1.	Start Time	Elapsed Time	End Time	
	8:42 а.м.	1 hour 13 minutes		
	2:13 р.м.	3 hours 24 minutes		
	6:39 р.м.		8:53 р.м.	
	3:09 а.м.		8:00 a.m.	
		2 hours 30 minutes	3:50 а.м.	
		1 hour 26 minutes	8:42 р.м.	

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?
- **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?
- **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?
- **5. Stretch Your Thinking** Write a word problem to match the proof drawing. Solve your problem.



Solve each problem.

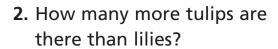
- **1.** Colin needs 300 tickets to win a coloring book at the arcade. He already has 124 tickets. How many more tickets does he need?
- 2. When the bookmobile arrived, it had 321 books. At the end of the day, there were 87 books left. How many books were borrowed?
- 3. There are 504 students in Maya's 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?
- **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?

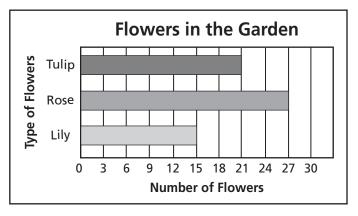
Subtract.

11. Write a word problem for one of the subtraction exercises above.

Use the horizontal bar graph to answer each question.

1. How many roses are in the garden?





Subtract. Show your ungroupings. Use proof drawings if you need to.

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.

Poster	Number of			
	Stars			
Rewards	376			
Constellations	286			
Night Sky	214			
Flags	204			



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. _____
- 2. Write a subtraction word problem related to the addition word problem. Then find the answer without doing any calculations.

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.
- **4.** Write an addition word problem related to the subtraction word problem. Then find the answer without doing any calculations.

UNIT 4 LESSON 14

Write the times as minutes *after* an hour and minutes *before* an hour.

1.



2.



3.



4.



5.



6.



Subtract.

953

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.

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?
- 2. Susan downloaded 425 songs onto her cell phone. She gave her friend 148 of the songs. How many songs does Susan still have?
- **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?
- **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?
- **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?

UNIT 4 LESSON 15

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?

Subtract.

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.
- **6.** Write a subtraction word problem related to the addition word problem in Exercise 5. Then find the answer.

7. Stretch Your Thinking Use the number 382 to write a subtraction equation in which only the tens is ungrouped. Solve.

Solve.

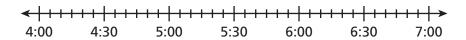
1. Write and solve an addition word problem that has the numbers 268 and 487.

2. Write and solve a subtraction word problem that has the numbers 194 and 526.

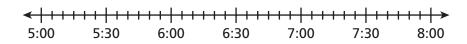
- **3.** The yearbook staff took a total of 905 photographs. They used 487 of the photographs in the yearbook. How many of the photographs were not used?
- **4.** Mr. Pinsky has to read a 362-page book for his book club. He read the first 129 pages last week. This week he has read 153 pages. How many pages does he have left to read?
- **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?

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?



2. Jamal finishes watching a movie at 8:00 P.M. The movie was 2 hours 25 minutes long. At what time did the move start?



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?
- **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.

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?
- 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?
- **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?
- **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?

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.
- **6.** The bakery made 600 doughnuts. They made 384 more doughnuts than bagels. The bakery made 216 bagels.
- 7. Randall found 54 seashells and his sister found 37 seashells at the beach. Together they found 91 seashells at the beach.
- **8.** Julia sold 56 tomatoes, 27 onions, and 38 peppers at the Farmers' Market. She sold 11 vegetables in all?

UNIT 4 LESSON 17

Write the first-step question and answer. Then solve the problem.

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?
 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?

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?

4. Write and solve an addition word problem that has the numbers 495 and 247.

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?

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.

- 1. How much farther is it from Moscow to Sweden than Sweden to China?
- 2. If you traveled from China to Paris to Mexico and then to Moscow, how many miles would you travel in all?
- 3. 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?
- **4.** If you travel at 60 miles per hour, about how many hours would it take you to travel from Moscow to Sweden?



Use the data to make a line plot.

1. **Crayon Lengths in Inches** $3\frac{1}{2}$ $2\frac{1}{2}$ Tony Ellen Rocky 1 Alea 3 $2\frac{1}{2}$ $3\frac{1}{2}$ Joanna Paul Trisha 2 3 Chun Kobe 3 Kurt 4

Г		Ci	rayc	n Le	ngt	ns		_
	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	3 1/2	4	-
'	Number of Inches					_		

Use the data displays to answer the questions.

- 2. Which length appears most often?
- 3. What is the length of the shortest crayon?
- **4.** What is the differences in length between the shortest and longest crayons?

Use rounding to decide if the answer is reasonable. Write yes or no. Then find the answer to see if you were correct.

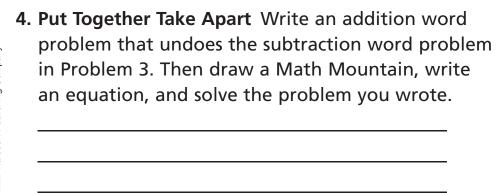
- **5.** Brianna and Greyson are saving pennies. Brianna has a jar with 348 pennies. Greyson has 395 pennies in his jar. Together they have 653 pennies.
- **6.** Harrison Elementary School has 672 students. There are 313 girls. There are 359 boys in the school.
- 7. Stretch Your Thinking Manuel drives 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?

Draw a Math Mountain and write an equation to solve each problem.

Show your work.

- 1. Add To Kelsey had 9 books. She borrowed 4 more books from her friend. How many books does Kelsey have now?
- 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.

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?



Write a number to make each number sentence true.

6.
$$\neq 9-4$$

Solve using a numerical method and a proof drawing.

Subtract. Show your ungroupings. Use proof drawings if you need to.

Estimate the length of the line segment in inches. Then measure it to the nearest $\frac{1}{2}$ inch.

Estimate: _____ Actual: _____

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.

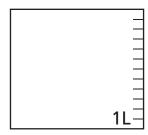
Solve each problem. Label your answers.

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?
- **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?
- **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?
- **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?
- **5.** Brent has 81 miniature cars in his collection. There are 9 cars in each box. How many boxes of cars are there?
- **6. Create and Solve** Write and solve a word problem in which you must find an unknown addend or factor.

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?



2. Jack has a bottle with 700 milliliters of juice. He drinks 400 milliliters. How much juice is left in the bottle?



Write the number for the words.

- 3. one hundred forty-six _____
- 4. ninety-three _____
- **5.** four hundred twelve _____
- **6.** sixty _____

Draw a Math Mountain and write an equation to solve each problem.

Show Your Work.

- **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?
- 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.
- **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.

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?
- 2. Jamal caught some lightning bugs. His friend gave him 13 more. Now he has 29 lightning bugs. How many did he catch?
- **3.** Anu is eating grapes. She has eaten 14 of them. She has 18 grapes left. How many grapes did she start with?
- **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?
- **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?
- **6. Create and Solve** Write and solve an unknown start or an unknown factor word problem of your own.

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?
- 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?

Round each number to the nearest hundred.

- **3.** 438 _____
- **4.** 649 _____
- **5.** 251 _____

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?
- **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. 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.

Compare the numbers. Write >, <, or = in each \bigcirc .

1. 765 756

2. 467 758

3. 2,014 2,410

4. 8,462 8,462

Write the numbers in order from least to greatest.

5. 92, 78, 82

6. 496, 424, 485

Solve each problem. Label your answers.

Show your work.

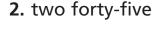
- 7. Unknown Smaller Amount Will ate 8 fewer crackers than Louis. Louis ate 24 crackers. How many crackers did Will eat?
- **8. Unknown Larger Amount** Zoe walks 9 more blocks than Raj. Raj walks 12 blocks to school. How many blocks does Zoe walk?

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.

Draw the hands on the analog clock. Write the time on the digital clock.

1. four fifteen



3. two minutes before six













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?

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?

6. Stretch Your Thinking Use the digits 9, 4, 2 to write comparisons.

>____

____<___

_____ = ____

____>___

____<___

____= ____

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?
- 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?
- **3.** Molly hit 6 home runs. Molly hit 3 fewer home runs than Jerry. How many home runs did Jerry hit?
- **4.** John caught 4 fireflies. He caught 6 fewer fireflies than Jessica. How many fireflies did Jessica catch?
- **5.** Ankur ate 9 raisins. He ate 4 fewer raisins than Lena. How many raisins did Lena eat?
- **6.** Amelia made 11 baskets. She made 3 more baskets than Girard. How many baskets did Girard make?
- **7.** Roberto did 15 sit-ups. He did 5 fewer sit-ups than Marcus. How many sit-ups did Marcus do?

Complete the table.

1.	Start Time	Elapsed Time	End Time
	4:38		6:50
	10:15	1 hour 17 minutes	
		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?
- **3.** The number of which two items rounds to the same number?

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.

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?
- 2. Isabelle baked a dozen muffins. Her family ate 5 of them. How many muffins does Isabelle have left?
- 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?

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?
- 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?

Multiply or divide.

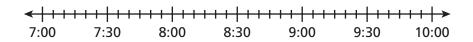
$$\frac{63}{9} =$$

$$\frac{63}{9} = \underline{\qquad} \frac{16}{2} = \underline{\qquad} \frac{27}{3} = \underline{\qquad}$$

$$\frac{27}{3} =$$

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?
- 4. Austin reads 8 books. He reads 4 more books than Emily. How many books does Emily read?
- 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.

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?

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?

3. Sara made 20 necklaces. She kept 2 necklaces and divided the rest equally among 6 friends. How many necklaces did each friend get?

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?

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?

Multiply or divide to find the unknown numbers.

3.
$$45 \div 9 =$$

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?
- 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?

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?
- **10. Stretch Your Thinking** Write and solve a word problem that uses the factors 6 and 9 and has extra information about grams.

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?
- 2. Jennifer picked 3 daffodils, 9 daisies, and some tulips for her mother. Altogether she picked 16 flowers. How many tulips did she pick?
- **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?
- **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?
- **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?
- **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?

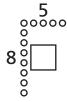
UNIT 5 LESSON 8

Find the unknown number in the Fast Array drawing.

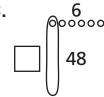
1.



2



3.



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. _____

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?

6. Stretch Your Thinking Write a two-step word problem that has an answer of 7 pages.

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

	Jungle Adventure	Hannah the Hero	Space Race
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?
- 2. How many tickets were sold for the late showing of the three movies?

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

	Pizza	Pasta	Salads
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.

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Date

Remembering

Write an equation and solve the problem.

- 1. Joey counts the windows on the 3-floor building. There are 6 windows on each floor. How many windows does he count?
- 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?

Solve the problem.

3. Seth earns 783 points in a video game. He loses 250 points. What is his score now?

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. 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?
- 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



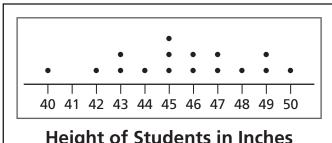
Write an equation and solve the problem.

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?
- 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?
- **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?
- **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?
- **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?
- **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?

Use the line plot to solve the problem.

1. How many students are 47 inches or taller?



Height of Students in Inches

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?
- 3. How many more riders are there in the entire day for the merry-go-round than riders in the afternoon for the twister?
- 4. Stretch Your Thinking Write a two-step word problem using this equation: $72 \div 9 + 6 = b$, b = 14



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?
- 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?
- **3.** Use the data in the table to write another two step problem.

Use basic multiplication and mental math to complete.

$$60 \times 3 =$$

Multiply or divide to find the unknown numbers.

8.
$$7 = \underline{\hspace{1cm}} \div 8$$

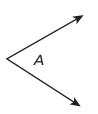
Write an equation and solve the problem.

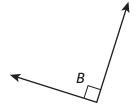
Show your work.

- 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?
- 14. Coach Ruiz buys one package of 50 cups and 4 packages of 20 cups. How many cups does Coach Ruiz buy altogether?
- 15. Stretch Your Thinking Use the table to write and solve a two step word problem that has an answer of 49 points.

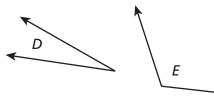
	Carly	Evan	Isaac
Points	245	118	176

Look at the angles below.





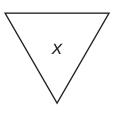




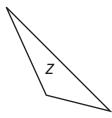
- 1. Which angles are right angles? _____
- 2. Which angles are larger than a right angle? ______
- 3. Which angles are smaller than a right angle? ______

Use the triangles for 4–7. Write *W*, *X*, *Y*, or *Z*. Then complete the sentences.









- 4. Triangle ____ has 3 angles smaller than a right angle and ____ sides of equal length.
- 5. Triangle ____ has 1 angle larger than a right angle and ____ sides of equal length.
- 6. Triangle ____ has 1 right angle and ____ sides of equal length.
- 7. Triangle ____ has 3 angles smaller than a right angle and ____ sides of equal length.

Draw an example of each figure described below. Then name the figure.

- 8. a polygon with 6 sides and 6 angles _____
- 9. a polygon with 4 sides and 4 angles _____
- 10. a polygon with 8 sides and 8 angles _____

Write the number for each place value drawing.

2.

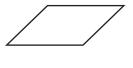
Write the number.

Solve each problem. Label your answer.

There are 147 third grade students going to the theater. Each row at the theater has ten seats.

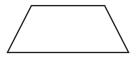
- 7. How many rows of seats will the third grade students fill?
- **8.** How many students will be seated in a row that isn't filled?
- **9. Stretch Your Thinking** Draw a right angle triangle with 0 sides of equal length.

1. Circle the figures that are parallelograms.











Read each sentence and write whether it is true or false.

- 2. All squares are rectangles.
- 3. All parallelograms are squares.
- 4. All quadrilaterals are parallelograms. _____
- 5. The opposite sides of a square are always parallel.
- Circle all the words that describe the figure.

6.



7.



8.



- square
- rectangle
- parallelogram
- quadrilateral

- parallelogram
- quadrilateral
- rectangle
- trapezoid

- rectangle
- parallelogram
- quadrilateral
- rhombus

Round each number to the nearest hundred.

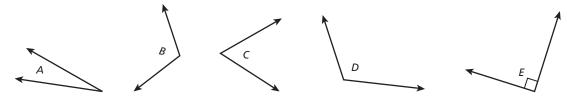
- **1.** 554 _____
- **2.** 748 _____
- **3.** 381 _____

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?
- **5. Add To** Danny has 9 CDs. He buys 5 more CDs at a yard sale. How many CDs does Danny have now?

Look at the angles below.

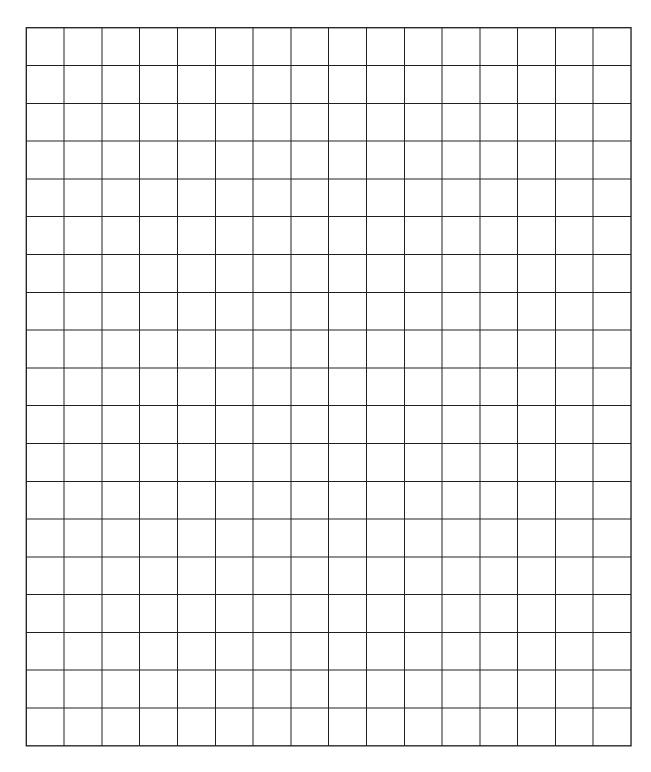


- **6.** Which angles are larger than a right angle? _____
- 7. Which angles are smaller than a right angle? _____
- 8. Which angles are right angles? _____
- 9. Stretch Your Thinking Explain how a square is a rectangle.

Date

Homework

- 1. Draw a parallelogram with no right angles.
- 2. Draw a parallelogram with right angles.
- **3.** Draw a rectangle with equal side lengths.



Use rounding to decide if the answer is reasonable. Then find the answer to see if you were right.

1.
$$136 - 87 = 49$$

2.
$$94 - 56 = 83$$

3.
$$165 + 28 = 163$$

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?
- 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?

Circle all the words that describe the figure.

6.







parallelogram

rectangle

square

quadrilateral

parallelogram

rectangle

rectangle

quadrilateral

parallelogram

trapezoid

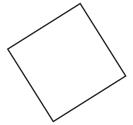
rhombus

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.

Circle every name that describes the figure.



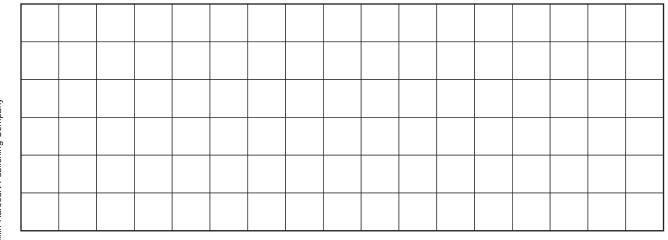




- quadrilateral
 parallelogram
 rectangle
 trapezoid
- 2. quadrilateral parallelogram rectangle square
- quadrilateral parallelogram rectangle square

Draw each figure.

- **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.

UNIT 6 LESSON 4

Date

Remembering

Unscramble the place values and write the number.

1. 4 ones + 6 hundreds _____

2. 2 ones + 3 hundreds + 5 tens _____

3. 8 tens + 9 hundreds _____

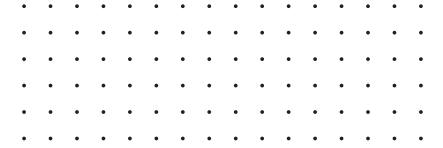
Solve each problem. Label your answers.

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?

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?

6. Draw a parallelogram with no right angles.



7. Stretch Your Thinking Draw a quadrilateral with sides that are not equal.



Draw each rectangle on the dot paper. Find the perimeter and area.

1. A rectangle 5 cm long and 3 cm wide



Perimeter = _____

Area = _____

2. A rectangle 3 cm long and 3 cm wide

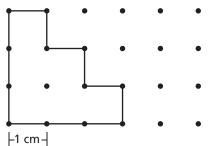
• • • • • • •

Perimeter = _____

Area = ______

Find the perimeter and area of each figure. Remember to include the correct units in your answers.

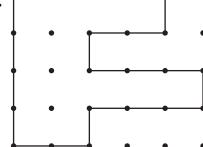
3.



Perimeter = _____

Area = _____

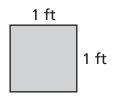
4.



Perimeter = _____

Area = _____

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?



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?

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.

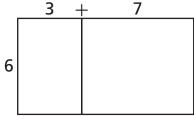
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• • • •

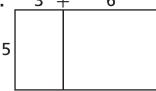
-1 cm-

Write an equation for the area of each rectangle.

1.

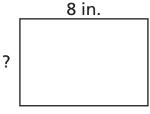


2. 6



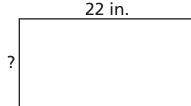
Find the unknown side length in each diagram.

3.



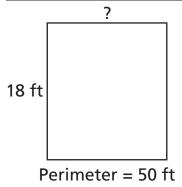
Area = 56 sq in.

4.

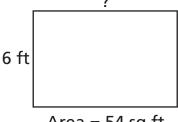


Perimeter = 66 in.

5.



6.



Area = 54 sq 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?
- 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?

Add or subtract.

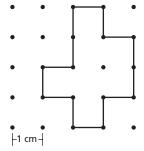
Solve each problem. Label your answers.

Show your work.

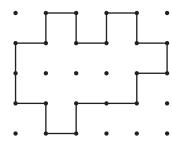
- **5.** Kenzie bakes 9 oatmeal cookies. Kenzie bakes 7 fewer cookies than Lisa. How many oatmeal cookies does Lisa bake?
- 6. Hayden reads 8 books over the summer. He reads 5 more books than Max. How many books does Max read?

Find the perimeter and area of each figure. Remember to include the correct units in your answers.

7.



8.



Perimeter = _____

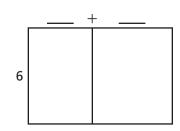
Perimeter = _____

Area = _____

Area = _____

9. Stretch Your Thinking Fill in the unknown numbers. Explain how you solved.





Area = 54 sq cm

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.

- **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.

Rectangles with Perimeter 16 cm		
Lengths of Two Adjacent Sides	Area	

- **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.

6. Compare the shapes of the rectangles with the least and greatest perimeters.

Rectangles with Area 16 sq cm		
Lengths of Two Adjacent Sides	Perimeter	

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.

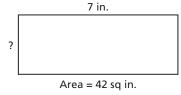
- **1.** What is the total number of students at Audubon High School and Rivers Elementary?
- **2.** The total number of which two schools is about 900 students?

Read the problem. Cross out any extra information or circle the hidden information. Then solve.

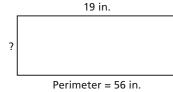
3. Brian has 8 rolls in one bag and a dozen in another bag. How many rolls does Brian have?

Find the unknown side length in each diagram.

4.



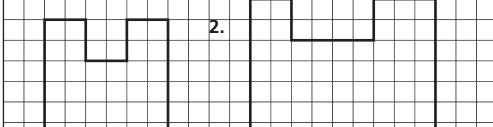
5.



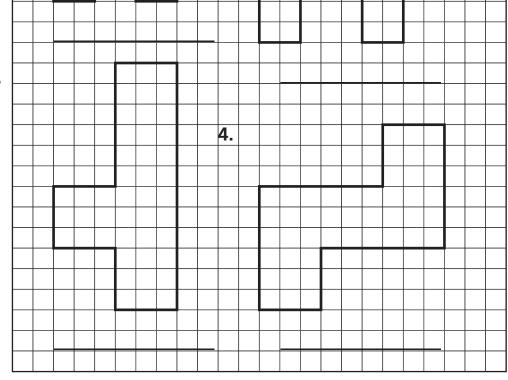
6. Stretch Your Thinking Give an example of a square that has the same number for its area and perimeter.

Decompose each figure into rectangles. Then find the area of the figure.

1.



3.



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5. Choose one figure from Exercises 1–4. Explain how and why you decomposed it as you did.

6-8

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?

Write the first step question and answer. Then solve the problem.

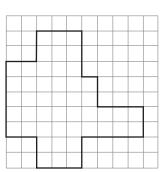
2. Dominic puts his cars in 6 rows with 5 in each row. His sister changes them into 3 rows with the same number in each row. How many cars did she put in each row?

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.
- **4.** Find and label the area of each rectangle. Then complete the table.
- **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.

Rectangles with Perimeter 12 cm

Lengths of Two Adjacent Sides	Area



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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

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

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

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

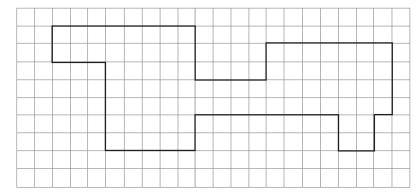
Subtract. Show your ungroupings. Use proof drawings if you need to.

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?

Decompose the figure into rectangles. Then find the area of the figure.

5.

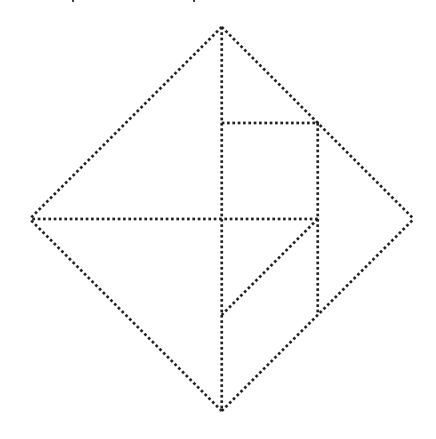


6. Stretch Your Thinking Abbie makes two different quilts. Each quilt is a square. However, the quilts have different perimeters and areas. Describe the areas and perimeters the two quilts could have.

Quilt 1 ______ perimeter

Quilt 2 _____ area _____ perimeter

- 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.



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?

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.

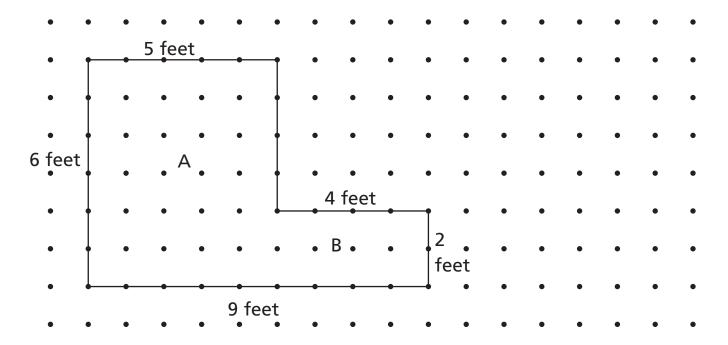
- 2. How many vehicles in all were parked in the garage on Tuesday?
- **3.** How many more trucks and cars combined were parked on Monday than SUVs?

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

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.



Use the drawing above to solve the problems.

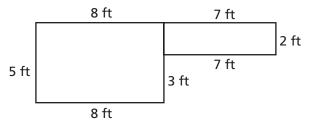
- 1. Elton wants to plant grass seed in his backyard. The two parts of his yard are shaped like rectangles. He will use 1 cup of grass seed for every square foot in his yard. How many cups will he use?
- **2.** Elton wants to put a picket fence around the outside of his backyard. How many feet of fencing will he need?
- **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?

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?
- 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?

Write an equation and solve the problem.

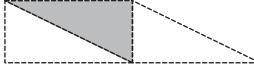
- **3.** Dexter buys a package of 38 plates. He already has 4 plates. He puts an equal number on each of 6 tables. How many plates are on each table?
- **4.** Use the tangram pieces to make shapes. Choose one shape and copy it on a separate sheet of paper. Find the area of the shape you made. Remember, the square is one square inch.
- 5. Stretch Your Thinking Anna has 30 feet of fence to go around her garden. The lettuce will be in a 8 ft × 5 ft section and the carrots will be in a 2 ft × 7 ft section. Will



her layout work? If not, how can she change it to work?

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?

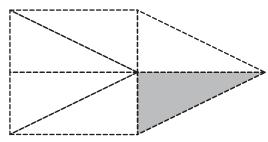
1.



There are _____ equal parts in the whole shape.

The shaded triangle is _____ of the whole shape.

2.



There are _____ equal parts in the whole shape.

The shaded triangle is _____ of the whole shape.

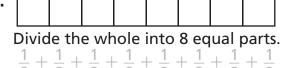


There are _____ equal parts in the whole shape.

The shaded triangle is _____ of the whole shape.

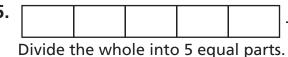
Write a sum to represent the part of the fraction bar that you shaded. Then write it as one fraction.

4.



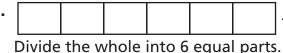
Shade 3 parts.

5.



Shade 4 parts.

6.



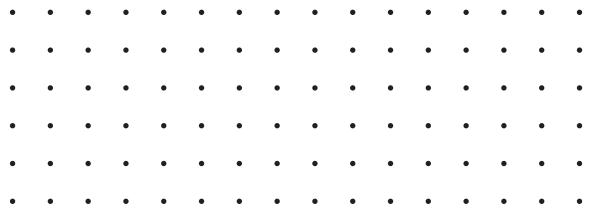
Draw a Math Mountain and write an equation to solve each problem.

Show your work.

- **1. Take From** Kate brings 15 muffins to the bake sale. She sells 9. How many muffins does she have now?
- **2. Put Together** Ryan has 8 large stickers and 4 small stickers. How many stickers does Ryan have altogether?

Read each sentence and write whether it is *true* or *false*.

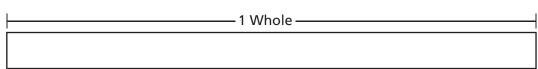
- 3. All parallelograms are rectangles. _____
- 4. All parallelograms are quadrilaterals.
- 5. Draw a parallelogram with no right angles.



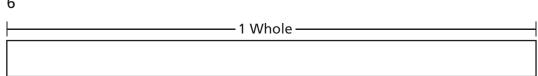
6. Stretch Your Thinking Cameron eats $\frac{1}{3}$ of his granola bar before school and another $\frac{1}{3}$ of the granola bar for lunch. Draw and shade a fraction bar to show how much of the granola bar Cameron has eaten.

Shade each fraction bar to show the fraction. First, divide the fraction bar into the correct unit fractions.

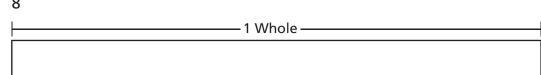
1. $\frac{1}{4}$



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. $\frac{5}{6}$

UNIT 7 LESSON 2

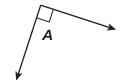


Solve each problem. Label your answers.

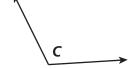
Show your work.

- 1. Chen has \$8. She earns some more money babysitting. Now she has \$17. How much money does she earn for babysitting?
- 2. Dylan has 48 baseball cards. He puts 8 cards on each album page. How many album pages does he fill with baseball cards?

Look at the angles below.









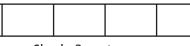


3. Which angles are smaller than a right angle? ______

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

5. Stretch Your Thinking Write a word problem to match the shaded fraction bar.

⊢1 Whole						

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Locate each fraction less than 1 on the number line.

1. $\frac{1}{3}$



2. $\frac{1}{6}$

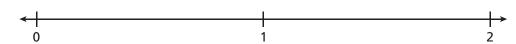


3. $\frac{1}{4}$ and $\frac{7}{8}$



Locate each fraction greater than 1 on the number line.

4. $\frac{7}{4}$



5. $\frac{4}{1}$



6. $\frac{6}{3}$



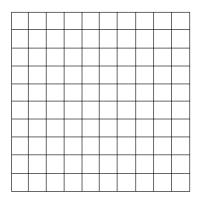
7. Explain how you located one of the fractions from Exercises 4–6.

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?

Draw the figure.

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.

- 3. $\frac{2}{6}$
- **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.

1

Homework

1

 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{2}{2}$

Use the diagram. Write < or > to compare the unit fractions.

1.
$$\frac{1}{3}$$
 $\frac{1}{7}$

2.
$$\frac{1}{3}$$
 \bigcirc $\frac{1}{2}$

3.
$$\frac{1}{6}$$
 \bigcirc $\frac{1}{7}$

4.
$$\frac{1}{2}$$
 $\frac{1}{4}$

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.
$$\frac{1}{2}$$
 $\frac{1}{7}$

19.
$$\frac{1}{8}$$
 \bigcirc $\frac{1}{6}$

20.
$$\frac{1}{2}$$
 \bigcirc $\frac{1}{8}$

21.
$$\frac{1}{6}$$
 \bigcirc $\frac{1}{4}$

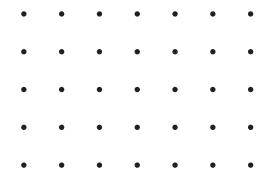
Solve each problem. Label your answers.

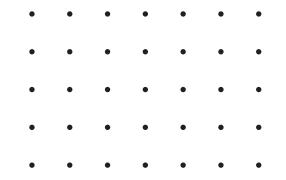
Show your work.

- 1. Jennifer has 12 stamps. After she puts one stamp on each invitation, she has 3 left. How many invitations have stamps?
- **2.** Michael played 15 songs. He played 13 fewer songs than Landon. How many songs did Landon play?

Draw each rectangle on the dot paper. Find the perimeter and area.

- **3.** A rectangle 4 cm long and 2 cm wide.
- **4.** A rectangle 4 cm long and 4 cm wide.





Perimeter _____

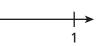
Perimeter _____

Area _____

Area _____

Locate the fraction less than 1 on the number line.

5.
$$\frac{2}{3}$$



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.

Compare. Use <, >, or =.

1.
$$\frac{3}{4}$$
 $\frac{3}{8}$

2.
$$\frac{2}{6}$$
 $\frac{2}{5}$

3.
$$\frac{5}{7}$$
 $\frac{2}{7}$

4.
$$\frac{1}{6}$$
 $\frac{1}{8}$

5.
$$\frac{5}{8}$$
 $\frac{3}{8}$

6.
$$\frac{4}{6}$$
 $\frac{5}{6}$

7.
$$\frac{4}{4}$$
 $\frac{3}{3}$

8.
$$\frac{3}{5}$$
 $\frac{3}{8}$

9.
$$\frac{3}{4}$$
 $\frac{2}{3}$

10.
$$\frac{2}{4}$$
 $\frac{4}{4}$

11.
$$\frac{5}{7}$$
 $\frac{5}{8}$

12.
$$\frac{3}{3}$$
 $\frac{4}{4}$

13.
$$\frac{8}{8}$$
 $\frac{6}{8}$

14.
$$\frac{8}{8}$$
 $\frac{6}{6}$

15.
$$\frac{8}{6}$$
 $\frac{5}{6}$

16.
$$\frac{4}{8}$$
 $\frac{6}{8}$

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?
- 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?

Read each problem. Cross out any extra information or circle the hidden information. Then solve.

Show your work.

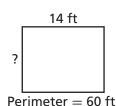
- 1. Jordan keeps track of rainy days for one year. This year he counted 27 weeks with at least 1 rainy day. How many weeks had no rainy days?
- 2. Claudia scores 275 points on a video game. Hannah scores 268 points on the same video game. The high score for the same game is 306. How many points did the girls score in all?

Find the unknown side length in each diagram.

3.

		9	in.			
7						
:						
Α	rea	=	72	sa	ir	١.

4.



Use the diagram. Write < or > to compare the unit fractions.

	1]
1/2				1 2]
1/3			1 3			- 1	1	_]
1 1		1 1	1	1 4			1 1	_]
1	1	<u> </u>	1		1	Т	1	_
5	5		5		5	_	5] :
$\frac{1}{6}$	1 6	1 6	1/6		1 6		1 6	

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.

Use your fraction strips for Exercises 1-6. Fill in the blanks.

1. How many eighths are in one fourth? _____

Complete these equations:

_____ eighths = 1 fourth

$$\frac{1}{8} = \frac{1}{4}$$

2. How many fourths are in one half? _____

Complete these equations:

_____ fourths = 1 half

$$\frac{\boxed{}}{4} = \frac{1}{2}$$

3. How many eighths are in three fourths? _____

Complete these equations:

_____ eighths = 3 fourths

$$\frac{ }{8} = \frac{3}{4}$$

4. How many sixths are in two thirds? _____

Complete these equations:

_____ sixths = 2 thirds

$$\frac{}{6} = \frac{2}{3}$$

5. How many sixths are in one half? _____

Complete these equations:

_____ sixths = 1 half

$$\frac{\Box}{6} = \frac{1}{2}$$

6. Find three other pairs of equivalent fractions.

Multiply or divide.

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.
- **8.** Find and label the area of each rectangle. Then complete the table.

Rectangles with	Perimeter 14 cm		
Lengths of Two Adjacent Sides	Area		

Compare. Use <, >, or =.

9.
$$\frac{1}{3}$$
 $\frac{2}{7}$

10.
$$\frac{3}{6}$$
 $\frac{2}{5}$

11.
$$\frac{4}{6}$$
 $\frac{6}{6}$

12.
$$\frac{4}{8}$$
 $\frac{2}{4}$

13.
$$\frac{4}{6}$$
 $\frac{4}{7}$

14.
$$\frac{2}{5}$$

15.
$$\frac{3}{6}$$
 $\frac{7}{8}$

16.
$$\frac{3}{5}$$
 $\frac{3}{7}$

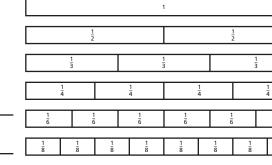
17.
$$\frac{2}{6}$$
 $\frac{4}{8}$

18.
$$\frac{3}{3}$$
 $\frac{5}{5}$

19.
$$\frac{5}{4}$$
 $\frac{2}{4}$

20.
$$\frac{5}{6}$$
 $\frac{5}{4}$

21. Stretch Your Thinking Use 4, 6, and 8 as denominators, and write six equivalent fractions.



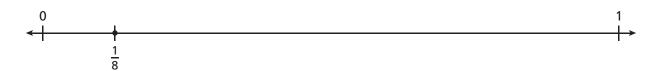
1. Complete each number line. Show all fractions including each fraction for 1.

0 1 1 2









Use your number lines. Write an equivalence chain.

- **2.** With fractions that equal $\frac{1}{2}$
- 3. With fractions that equal $\frac{3}{4}$
- **4.** With fractions that equal $\frac{6}{6}$

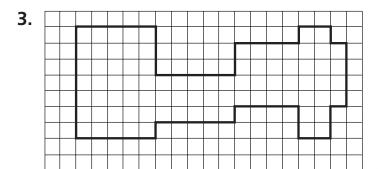
UNIT 7 LESSON 7

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?
- 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?

Decompose the figure into rectangles. Then find the area of the figure.



Use your fraction strips for Exercise 4. Fill in the blanks.

4. How many sixths are in one third? _____

Complete these equations:

5. Stretch Your Thinking Look at the fractions.

 $\frac{1}{2}$

2/1

<u>3</u>

 $\frac{4}{8}$

Explain the relationship between the numerator and the denominator. Write a different fraction equivalent to $\frac{1}{2}$.

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.
- 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.
- 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 $\frac{1}{2}$.
- **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?
- **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?

UNIT 7 LESSON 8

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

- 1. On Monday, how many more nonfiction and used books are sold than fiction books?
- **2.** How many books were sold on Tuesday?

Solve. Draw a diagram to represent the situation.

3. 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

Complete the number line. Show all fractions including the fraction for 1.

- **5. 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.

Complete.

- 1. Fold a sheet of paper in half. Open the paper and shade one part. Write a fraction for the shaded part.
- 2. Refold the paper along the same line. Fold it in half again. Write a fraction for the part you think is shaded.
- 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.
- 4. Unfold the paper to check.
- 5. Write an equivalence chain using the fractions that name the shaded part of the paper.
- **6.** Write another fraction that is equivalent to $\frac{1}{2}$.
- 7. What 3 fractions can you write for the whole?

UNIT 7 LESSON 9

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?
- 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?
- **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.

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.
- 5. Keisha's box weighs $\frac{5}{4}$ pounds. Dylan's box weighs $\frac{7}{4}$ pounds. Whose box weighs more?
- **6. Stretch Your Thinking** How many times would you fold a sheet of paper in half to have eighths? Explain.