

Name: _____

\pm **5th Summer Math Practice** $\times \div$

The purpose of this resource is to help you keep your skills sharp while you're away for summer break. Use the information below to take stock of what you have learned.

Unit 1 - Number operations

I have learned how to... (Check off the skills that you are confident in)	Vocabulary / Key Phrases (Look these up for extra resources)
<ul style="list-style-type: none"><input type="checkbox"/> Solve problems using order of operations<input type="checkbox"/> Write whole numbers in expanded and standard form<input type="checkbox"/> Round whole numbers<input type="checkbox"/> Multiply whole numbers<input type="checkbox"/> Divide whole numbers<input type="checkbox"/> Write numerical expressions	<ul style="list-style-type: none">• Order of operations• PEMDAS• Numerical expressions• Multiply• Divide• Round• add/subtract•

Unit 2 -Place Value

I have learned how to... (Check off the skills that you are confident in)	Vocabulary / Key Phrases (Look these up for extra resources)
<ul style="list-style-type: none"><input type="checkbox"/> Writing whole numbers in standard and expanded form<input type="checkbox"/> Ordering and comparing whole numbers	<ul style="list-style-type: none">• Expanded form• Place value• value• Standard form

Unit 3 - Decimals

I have learned how to... (Check off the skills that you are confident in)	Vocabulary / Key Phrases (Look these up for extra resources)
<input type="checkbox"/> Adding decimals <input type="checkbox"/> Subtracting decimals <input type="checkbox"/> Writing decimals in standard and expanded form <input type="checkbox"/> Comparing and ordering decimals <input type="checkbox"/> Rounding decimals <input type="checkbox"/> Multiply decimals <input type="checkbox"/> Divide decimals	<ul style="list-style-type: none"> • Standard form • Expanded form • Decimal • estimate

Unit 4 - Fractions





I have learned how to... (Check off the skills that you are confident in)	Vocabulary / Key Phrases (Look these up for extra resources)
<input type="checkbox"/> Converting mixed numbers to improper fractions <input type="checkbox"/> Converting improper fractions to mixed numbers <input type="checkbox"/> Adding fractions and mixed numbers <input type="checkbox"/> Subtracting fractions and mixed numbers <input type="checkbox"/> Multiply fractions and mixed numbers <input type="checkbox"/> Divide fractions and mixed numbers <input type="checkbox"/> Simplify fractions	<ul style="list-style-type: none"> • Mixed number • Denominator • Numerator • Reciprocal • Greatest common factor • Least common multiple

Unit 5 - Geometry

I have learned how to... (Check off the skills that you are confident in)	Vocabulary / Key Phrases (Look these up for extra resources)
<input type="checkbox"/> Classify triangles <input type="checkbox"/> Classify polygons <input type="checkbox"/> Classify quadrilaterals <input type="checkbox"/> Find area of a polygon <input type="checkbox"/> Find area of a polygon <input type="checkbox"/> Find the volume of a rectangular prism	<ul style="list-style-type: none"> • Right, obtuse, acute • Isosceles, scalene, equilateral • Trapezoid, parallelogram, rhombus, square, rectangle • Pentagon, hexagon, octagon, triangle, quadrilateral • volume

Supplemental resources:

For more help and practice, we suggest the following sites.

					 Reflex Math
<u>Quizizz</u>	<u>Math Antics</u>	<u>IXL</u>	<u>Khan Academy</u>	<u>Kuta Worksheets</u>	

Unit 1–Number Operations

Order of Operations

When performing calculations, remember to follow the order of operations:

1. Do calculations within parentheses.	2. Do multiplication or division, working from left to right.	3. Do addition or subtraction, working from left to right.
$5 \times (2 \times 3) + 10 =$	$5 \times 6 + 10 =$	$30 + 10 = 40$ $5 \times (2 \times 3) + 10 = 40$



Solve the equation.

1. $(4 + 8) \times 3 \div 9 =$ _____

2. $27 - (10 - 8) + 25 =$ _____

3. $12 \div 3 + (54 \div 9) =$ _____

4. $72 - (8 \times 5) \div 4 =$ _____

5. $(12 + 30) \div 7 \times 2 =$ _____

6. $9 \times 4 - (48 \div 6) =$ _____

7. $72 \div 9 \times (24 - 18) =$ _____

8. $(7 \times 5) + 5 \times 4 =$ _____

9. $30 + (12 \times 0) - 8 =$ _____

10. $64 \div (5 + 3) \times 4 =$ _____

11. $18 - 3 + (45 \div 9) =$ _____

12. $(6 + 3) \times 4 \div 12 =$ _____

Other Grouping Symbols

Some equations use other grouping symbols such as **brackets []** or **braces { }** in addition to **parentheses ()**.

Do the equations within the parentheses first.	Then do the brackets or braces.	Use the order of operations.
$[8 \times (3 + 3)] \div [(42 \div 7) \times 2] =$	$[8 \times 6] \div [6 \times 2] =$	$48 \div 12 = 4$ $[8 \times (3 + 3)] \div [(42 \div 7) \times 2] = 4$

Solve the equation.

1. $[(35 \div 7) + 10] \div [3 + (12 \times 0)] =$ _____

2. $[(8 \div 4) \times (49 \div 7)] + 5 \times 4 =$ _____

3. $\{[10 + (6 \times 5)] - (80 - 60)\} \div 4 =$ _____

4. $[(56 \div 8) \times (32 \div 8)] - (5 \times 2) + 3 =$ _____

5. $72 - [(6 \times 8) + (32 \div 2)] \div 8 =$ _____

6. $\{60 \div (4 \times 3) + [(9 \times 4) \div (8 - 5)]\} - 7 =$ _____

7. $4 \times [(3 \times 6) \div (48 \div 24)] + 9 =$ _____

8. $[(3 \times 7) + (72 \div 8)] \div [(6 \times 4) \div (9 + 3)] =$ _____



Write Numerical Expressions

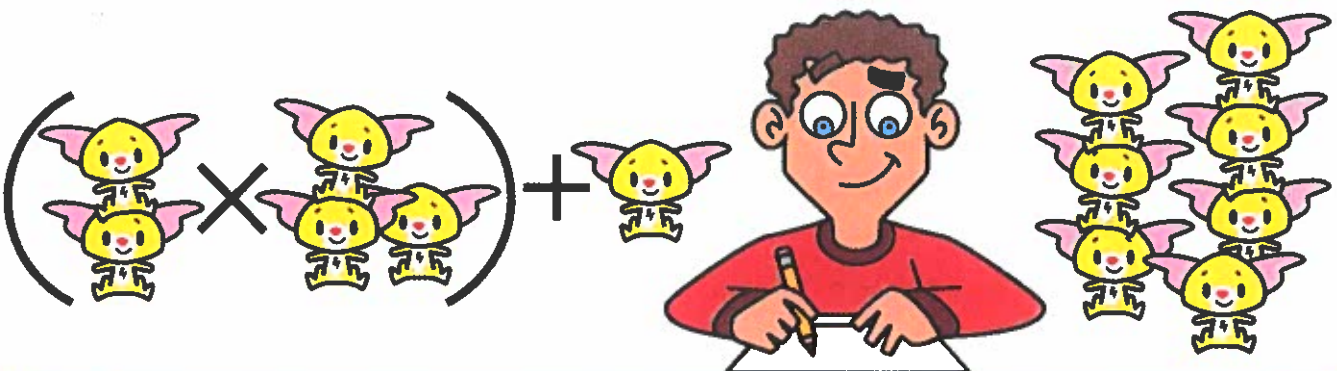
Remember the order of operations when you write numerical expressions.
Be sure to use grouping symbols.

What is three times the sum of 5 and 4? $3 \times (5 + 4)$



Write the numerical expression.

1. What is the product of $3 + 2$ and $36 \div 6$? _____
2. Divide 48 by 8, then multiply by 7. _____
3. Add 40 and 20, then divide by 15. _____
4. What is the sum of 3×6 and 2×9 ? _____
5. What is the difference between 6×8 and $24 \div 4$? _____
6. Add 30 to the product of 5×9 . _____
7. Find the difference between 49 and 37, then multiply by 6. _____
8. What is two times the sum of 25 and 17? _____



Multiply with Multiples of Ten

Look for patterns when you multiply by 10 or multiples of 10.

Example 1:	Example 2:	Example 3:
$3 \times 10 = 30$ $3 \times 100 = 300$ $3 \times 1,000 = 3,000$	$6 \times 40 =$ $6 \times (4 \times 10) =$ $(6 \times 4) \times 10 =$ $24 \times 10 = 240$	$2 \times 6 \times 5 =$ $(2 \times 5) \times 6 = 10 \times 6 = 60$ $2 \times (6 \times 5) = 2 \times 30 = 60$
Each product has the same number of zeros as the multiple of 10.	Look for basic facts.	Find factors that are multiples of 10.

Find the product.

1. $4 \times 100 =$ _____

2. $9 \times 60 =$ _____

3. $1,000 \times 7 =$ _____

4. $10 \times 20 =$ _____

5. $8 \times 5 \times 7 =$ _____

6. $3,000 \times 9 =$ _____

7. $2,000 \times 50 =$ _____

8. $6 \times 600 =$ _____

9. $12 \times 5 \times 7 =$ _____

10. $900 \times 8 =$ _____

11. $5,000 \times 4 =$ _____

12. $10 \times 80 =$ _____

13. $6 \times 8 \times 5 =$ _____

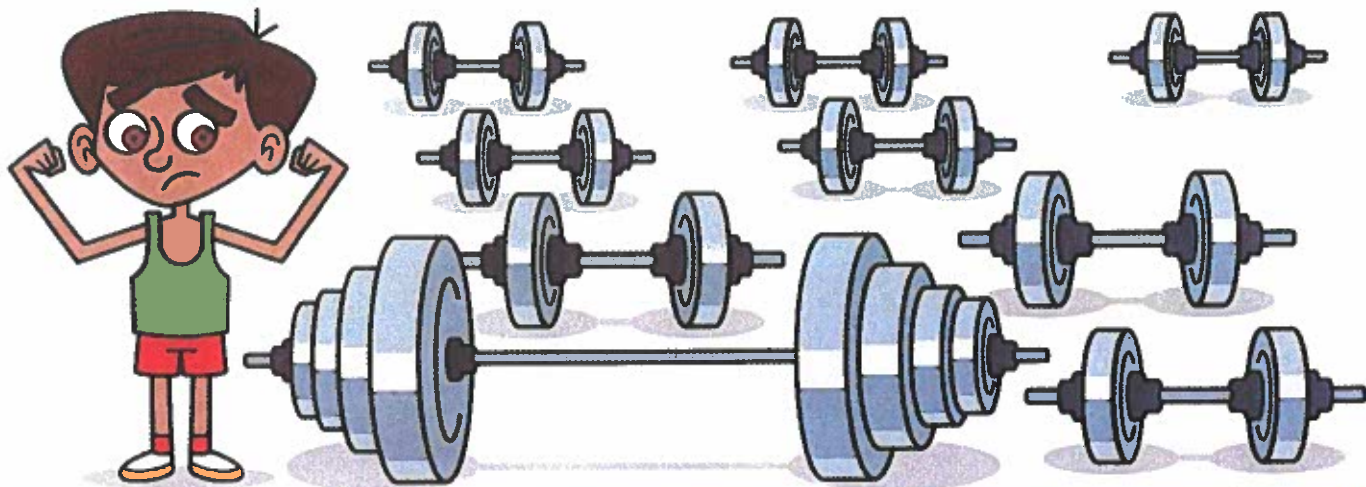
14. $15 \times 2 \times 4 =$ _____

15. $4 \times 4,000 =$ _____

16. $700 \times 8 =$ _____

17. $50 \times 300 =$ _____

18. $600 \times 300 =$ _____



Multiplying by Multiples

Use basic facts to find products involving multiples of 10, 100, and 1,000.
Look at these patterns.

$$\begin{aligned} 3 \times 2 &= 6 \\ 30 \times 2 &= 60 \\ 300 \times 2 &= 600 \\ 3,000 \times 2 &= 6,000 \end{aligned}$$

$$\begin{aligned} 4 \times 8 &= 32 \\ 40 \times 80 &= 3,200 \\ 400 \times 800 &= 320,000 \\ 4,000 \times 8,000 &= 32,000,000 \end{aligned}$$

$$\begin{aligned} 5 \times 4 &= 20 \\ 50 \times 4 &= 200 \\ 50 \times 40 &= 2,000 \\ 500 \times 40 &= 20,000 \end{aligned}$$

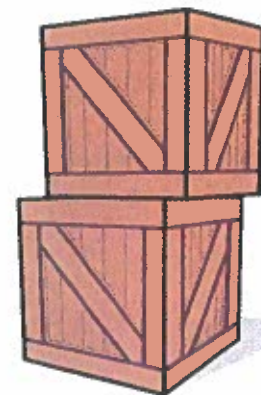
A basic fact is used over and over again in each pattern.
Compare the number of zeros in the products.

Here is a shortcut for multiplying with multiples of 10, 100, or 1,000.

Multiply the front digits. Write the product.	Affix as many zeros as shown in the factors.
What is 80×600 ?	80×600
80×600 48	48,000
	The product is 48,000.

Check:

$$\begin{array}{r} 600 \\ \times 80 \\ \hline 000 \\ 48,000 \\ \hline 48,000 \end{array}$$



Use the shortcut to find the product.
Try to solve the problem using mental math.

1. $5 \times 3,000 =$ _____

2. $600 \times 5 =$ _____

3. $10 \times 300 \times 20 =$ _____

4. $30 \times 100 =$ _____

5. $400 \times 200 =$ _____

6. $5 \times 100 \times 20 =$ _____

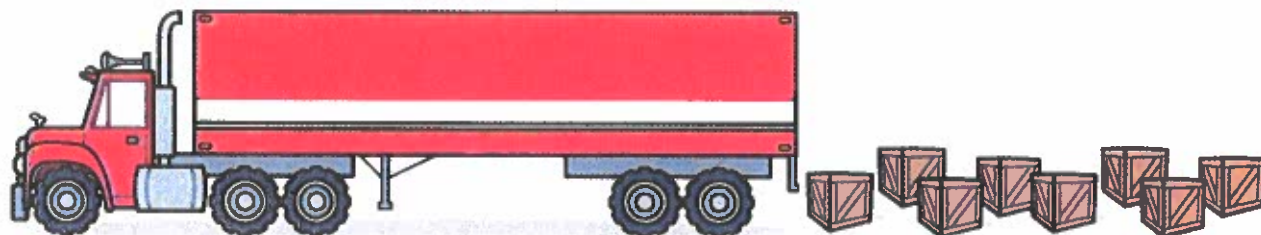
Compare the numbers. Write < or >.

7. 70×70 ☐ 300×7

8. 20×400 ☐ $2,000 \times 40$

Solve.

9. Each of ten trucks carries 200 crates.
500 boxes are in each crate.
How many boxes is each truck carrying?



Multiply Whole Numbers

Find the product of 26 and 628.

Multiply by the ones.	Multiply by the tens.	Add the partial products.
$\begin{array}{r} 14 \\ 628 \\ \times 26 \\ \hline 3768 \end{array}$	$\begin{array}{r} 1 \\ 628 \\ \times 26 \\ \hline 3768 \\ 12560 \end{array}$	$\begin{array}{r} 628 \leftarrow \text{factor} \\ \times 26 \leftarrow \text{factor} \\ \hline 3768 \\ + 12560 \\ \hline 16328 \leftarrow \text{product} \end{array}$ <p>The product is 16,328.</p>

You can estimate to see if your answer makes sense.
 26×628
 $30 \times 600 = 18,000$

Be sure to line up the partial products correctly.
 Remember these properties of multiplication.

Identity Property	Zero Property	Commutative Property
The product of a number and one is that number. $7 \times 1 = 7$ $1 \times 7 = 7$	The product of a number and zero is zero. $6 \times 0 = 0$ $0 \times 6 = 0$	Changing the order of the factors does not change the product. $6 \times 9 = 54$ $9 \times 6 = 54$



Estimate the product, then multiply.

1. $\begin{array}{r} 125 \\ \times 43 \\ \hline \end{array}$

2. $\begin{array}{r} 392 \\ \times 34 \\ \hline \end{array}$

3. $\begin{array}{r} 229 \\ \times 48 \\ \hline \end{array}$

4. $\begin{array}{r} 240 \\ \times 69 \\ \hline \end{array}$

5. $\begin{array}{r} 509 \\ \times 51 \\ \hline \end{array}$

6. $\begin{array}{r} 532 \\ \times 47 \\ \hline \end{array}$

7. $\begin{array}{r} 107 \\ \times 34 \\ \hline \end{array}$

8. $\begin{array}{r} 600 \\ \times 17 \\ \hline \end{array}$

9. $\begin{array}{r} 3,194 \\ \times 23 \\ \hline \end{array}$

10. $\begin{array}{r} 849 \\ \times 52 \\ \hline \end{array}$



Arrange the digits 1, 2, 6, and 8 to make each number sentence true.
 Use each digit only once.

_____ \times _____ = 1,428

_____ \times _____ = 1,236

Divide Whole Numbers

Divide 3,769 by 53.

You can estimate to see if your answer makes sense.
 $3,769 \div 53 \rightarrow$
 $3,500 \div 50 = 70$

Since multiplication and division are related, you can multiply to check your answer.

Estimate the first digit of the quotient and where it goes.	Divide. Multiply. Subtract. Bring down.	Repeat the steps until the dividing is finished.
$\begin{array}{r} 7 \\ 53 \overline{)3,769} \end{array}$ <p>Think:</p> $\begin{array}{r} 7 \\ 50 \overline{)350} \end{array}$	$\begin{array}{r} 7 \\ 53 \overline{)3,769} \\ \underline{- 371} \\ 59 \end{array}$	$\begin{array}{r} 71 \text{ R}6 \\ 53 \overline{)3,769} \\ \underline{- 371} \\ 59 \\ \underline{- 53} \\ 6 \end{array}$

$$\begin{array}{r} 71 \leftarrow \text{quotient} \\ \times 53 \leftarrow \text{divisor} \\ \hline 213 \\ 3550 \\ \hline 3763 \\ + 6 \leftarrow \text{remainder} \\ \hline 3,769 \leftarrow \text{dividend} \end{array}$$

Write only the first digit of the quotient in each problem.

1. $8 \overline{)526}$

2. $32 \overline{)617}$

3. $37 \overline{)4,708}$

4. $71 \overline{)6,226}$

Estimate the quotient, then divide. Check your answer.

5. $5 \overline{)371}$

6. $52 \overline{)3,215}$

7. $27 \overline{)5,697}$

8. $58 \overline{)66,982}$

Solve.

9. The students in Kim's class sold 832 magazine subscriptions in 26 days. They sold the same number of subscriptions each day. How many subscriptions did they sell each day?

Division Patterns

Use basic facts to find quotients of multiples of 10, 100, and 1,000.

$6 \div 2 = 3$	$32 \div 8 = 4$	$20 \div 40 = 5$
$60 \div 2 = 30$	$320 \div 80 = 4$	$200 \div 40 = 50$
$600 \div 2 = 300$	$3,200 \div 800 = 4$	$2,000 \div 40 = 500$
$6,000 \div 2 = 3,000$	$32,000 \div 8,000 = 4$	$20,000 \div 40 = 5,000$

A basic fact is used over and over again in each pattern.
Compare the number of zeros in the quotient with the number of zeros in the dividend and divisor.

Here is a shortcut for dividing with multiples of 10, 100, or 1,000.

Divide the front digits. Write the quotient.	Affix the number of zeros that are left by dividing the multiples.
What is $36,000 \div 90$?	$36,000 \div 90$
$36,000 \div 90$ 4	Think: $1,000 \div 10 = 100$
	400 The quotient is 400.

$$\begin{array}{r} 400 \\ 90 \overline{) 36,000} \end{array}$$



Use the shortcut to find each quotient. Think of basic facts.

- | | |
|------------------------------|-----------------------------|
| 1. $280 \div 7 =$ _____ | 2. $4,500 \div 50 =$ _____ |
| 3. $400 \div 50 =$ _____ | 4. $8,000 \div 800 =$ _____ |
| 5. $42,000 \div 700 =$ _____ | 6. $30,000 \div 60 =$ _____ |

Write the missing number.

- | | |
|-------------------------------|--------------------------------|
| 7. $250 \div$ _____ $= 50$ | 8. _____ $\times 3 = 120$ |
| 9. _____ $\div 9 = 600$ | 10. _____ $\times 70 = 49,000$ |
| 11. $5,600 \div$ _____ $= 80$ | 12. _____ $\times 5 = 25,000$ |



Divide with Zeros in the Quotient

Find the quotient of $9,635 \div 19$.

You can estimate to see if your answer makes sense.

$$9,635 \div 19 \rightarrow 10,000 \div 20 = 500$$

Start to divide as usual. Divide. Multiply. Subtract. Bring down.

$$\begin{array}{r} 5 \\ 19 \overline{) 9,635} \\ \underline{-95} \\ 13 \end{array}$$

When the divisor is larger than the number being divided, write a zero in the quotient.

$$\begin{array}{r} 50 \\ 19 \overline{) 9,635} \\ \underline{-95} \\ 13 \end{array}$$

Think: $\frac{?}{19 \overline{) 13}}$

Continue the division process.

$$\begin{array}{r} 507 \text{ R}2 \\ 19 \overline{) 9,635} \\ \underline{-95} \\ 13 \\ \underline{-0} \\ 135 \\ \underline{-133} \\ 2 \end{array}$$

Check:

$$\begin{array}{r} 507 \\ \times 19 \\ \hline 4563 \\ 5070 \\ \hline 9633 \\ + 2 \\ \hline 9,635 \end{array}$$



The problem at the right has the wrong answer. More than one digit was brought down instead of dividing digit by digit. Making an estimate before you divide can help you decide whether your answer is correct.

Estimate:
 $9,635 \div 19$
is about 500.

$$\begin{array}{r} 57 \text{ R}2 \\ 19 \overline{) 9,635} \\ \underline{-95} \\ 135 \\ \underline{-133} \\ 2 \end{array}$$

Estimate the quotient, then divide. Check your answer.

1. $2 \overline{) 414}$

2. $4 \overline{) 603}$

3. $37 \overline{) 748}$

4. $35 \overline{) 7,252}$

5. $41 \overline{) 4,428}$

6. $28 \overline{) 8,659}$

7. $57 \overline{) 34,656}$

8. $29 \overline{) 5,962}$

Solve.

9. Kevin's family drove 5,481 miles on a trip. Their car used one gallon of gas to drive 27 miles. How many gallons of gas did they use?

10. Suki's favorite team scored 107, 110, 94, and 109 points in four games. How many points did the team average per game?

Answer Key

Unit 1-Number Operations

Page 1

1. 4
 3. 10
 5. 12
 7. 48
 9. 22
 11. 20
2. 50
 4. 8
 6. 28
 8. 55
 10. 32
 12. 3

Page 2

1. 5
2. 34
3. 5
4. 21
5. 64
6. 10
7. 45
8. 15

Page 3

1. $(3 + 2) \times (36 \div 6)$
2. $(48 \div 8) \times 7$
3. $(40 + 20) \div 15$
4. $(3 \times 6) + (2 \times 9)$
5. $(6 \times 8) - (24 \div 4)$
6. $(5 \times 9) + 30$
7. $(49 - 37) \times 6$
8. $2 \times (25 + 17)$

Page 11

1. 400
 3. 7,000
 5. 280
 7. 100,000
 9. 420
 11. 20,000
 13. 240
 15. 16,000
 17. 15,000
2. 540
 4. 200
 6. 27,000
 8. 3,600
 10. 7,200
 12. 800
 14. 120
 16. 5,600
 18. 180,000

Page 12

1. 15,000
 3. 60,000
 5. 80,000
 7. >
 9. 100,000 boxes
2. 3,000
 4. 3,000
 6. 10,000
 8. <

Page 23

1. 5,375
 2. 13,328
 3. 10,992
 4. 16,560
 5. 25,959
 6. 25,004
 7. 3,638
 8. 10,200
 9. 73,462
 10. 44,148
- Brain Boggler: 21×68 ; 618×2

Page 24

1. 6 in tens place
2. 1 in tens place
3. 1 in hundreds place
4. 8 in tens place
5. 74 R1
6. 61 R43
7. 211
8. 1,154 R50
9. They sold 32 subscriptions a day.

Page 25

1. 40
 3. 8
 5. 60
 7. 5
 9. 5,400
 11. 70
2. 90
 4. 10
 6. 500
 8. 40
 10. 700
 12. 5,000

Page 26

1. 207
2. 150 R3
3. 20 R8
4. 207 R7
5. 108
6. 309 R7
7. 608
8. 205 R17
9. 203 gallons
10. 105 points

Unit 2–Place Value

Unit 2-Place Value

Page 7

1. < 2. >
3. > 4. >
5. > 6. <
7. 84,652; 85,462; 85,662
8. 189,908; 189,998; 198,598; 198,958



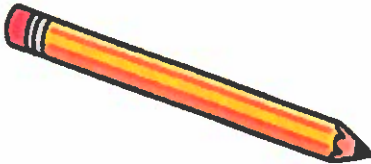
Page 9

1. 83,749
2. 312,956
3. 781,025
4. 42,971
5. 600,000 + 30,000 + 4,000 + 500 + 90 + 8
6. 100,000 + 80,000 + 0 + 900 + 20 + 6
7. 90,000 + 4,000 + 200 + 50 + 3
8. 200,000 + 70,000 + 7,000 + 800 + 60 + 9



Page 10

1. 500,000,000 + 90,000,000 + 7,000,000 + 300,000 + 20,000 + 8,000 + 600 + 10 + 1
2. 800,000,000 + 60,000,000 + 1,000,000 + 900,000 + 50,000 + 2,000 + 700 + 40 + 9
3. 600,000,000 + 40,000,000 + 8,000,000 + 200,000 + 50,000 + 1,000 + 0 + 90 + 3
4. 203,716,985
5. 192,835,460
6. 703,716,914



Page 8

1. thousands - 7, hundreds - 9, tens - 2, ones - 8
2. thousands - 4, hundreds - 1, tens - 6, ones - 9
3. thousands - 2, hundreds - 5, tens - 8, ones - 0
4. 5,000 + 300 + 0 + 6
5. 1,000 + 900 + 70 + 3
6. 8,000 + 800 + 40 + 2
7. 9,000 + 0 + 50 + 1
8. 6,000 + 500 + 40 + 4



Place Value of Whole Numbers

Which is greater: 28,748 or 28,527?

Line up the digits by place value.	Look at the digits from left to right. Find the first place where the digits are different.	Compare the values of the digits. The numbers compare the same way.
28,748	28,748	7 hundreds > 5 hundreds
28,527	28,527 ↑ different	28,748 > 28,527 28,748 is greater than 28,527

You could also write 28,527 is less than 28,748 or $28,527 < 28,748$.

To compare more than two numbers, use the same steps.

28,746 28,746 is the greatest number. It has the most hundreds. 28,746
28,562 Then compare the the other two numbers. 28,562
28,526 28,562 is greater than 28,526. It has more tens. → 28,526

Compare the numbers. Write < or >.

1. 285 ● 322

2. 9,728 ● 9,278

3. 45,883 ● 45,308

4. 51,070 ● 50,712

5. 561,040 ● 560,244

6. 3,400,899 ● 3,408,099

Write the numbers in order from least to greatest.

7. 85,662 84,652 85,462

8. 198,598 189,908 189,998 198,958



Place Value Through Thousands

The place value of the digits in the number 3,745 are:

<u>3</u>	<u>7</u>	<u>4</u>	<u>5</u>
thousands	hundreds	tens	ones

In expanded form, the number is: $3,000 + 700 + 40 + 5$
 The number is read: Three thousand, seven hundred forty-five.

Write the correct digit in each blank.

1. 7,928

<u> </u>	<u> </u>	<u> </u>	<u> </u>
thousands	hundreds	tens	ones

2. 4,169

<u> </u>	<u> </u>	<u> </u>	<u> </u>
thousands	hundreds	tens	ones

3. 2,580

<u> </u>	<u> </u>	<u> </u>	<u> </u>
thousands	hundreds	tens	ones

Write each number in expanded form.

4. 5,306 _____ + _____ + _____ + _____

5. 1,973 _____ + _____ + _____ + _____

6. 8,842 _____ + _____ + _____ + _____

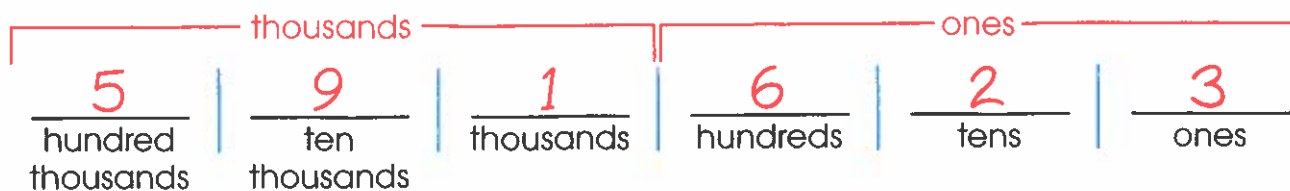
7. 9,051 _____ + _____ + _____ + _____

8. 6,544 _____ + _____ + _____ + _____



Place Value Through Hundred Thousands

Each digit in a multi-digit number is ten times more than the digit to its right.
The number 591,623 represents:



In expanded form, the number is:
 $500,000 + 90,000 + 1,000 + 600 + 20 + 3$

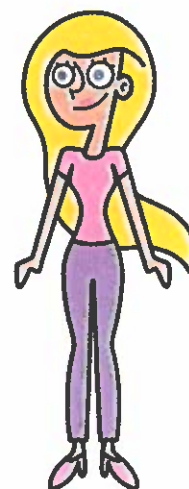
Write each number in standard form.

1. $80,000 + 3,000 + 700 + 40 + 9$

2. $300,000 + 10,000 + 2,000 + 900 + 50 + 6$

3. $700,000 + 80,000 + 1,000 + 0 + 20 + 5$

4. $40,000 + 2,000 + 900 + 70 + 1$



Write each number in expanded form.

5. 634,598 _____ + _____ + _____ + _____ + _____ + _____

6. 180,926 _____ + _____ + _____ + _____ + _____ + _____

7. 94,253 _____ + _____ + _____ + _____ + _____

8. 277,869 _____ + _____ + _____ + _____ + _____ + _____



Place Value Through Hundred Millions

The place values through the hundred millions are:

millions			thousands			ones		
4	8	1	6	7	3	2	5	9
hundred millions	ten millions	one millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

The number 481,673,259 is read:
Four hundred eighty-one million, six hundred seventy-three
thousand, two hundred fifty-nine.

Write each number in expanded form.

1. 597,328,611 _____ + _____ + _____ + _____ +
_____ + _____ + _____ + _____ + _____

2. 861,952,749 _____ + _____ + _____ + _____ +
_____ + _____ + _____ + _____ + _____

3. 648,251,093 _____ + _____ + _____ + _____ +
_____ + _____ + _____ + _____ + _____

Write each number in standard form.

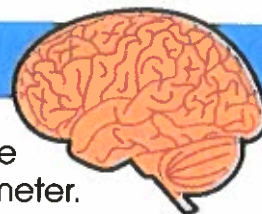
4. $200,000,000 + 0 + 3,000,000 + 700,000 + 10,000 + 6,000 + 900 + 80 + 5$

5. $100,000,000 + 90,000,000 + 2,000,000 + 800,000 + 30,000 + 5,000 + 400 + 60 + 0$

6. $700,000,000 + 0 + 3,000,000 + 700,000 + 10,000 + 6,000 + 900 + 10 + 4$

Unit 3-Decimals

More Decimal Place Value



The smallest cell in the human body is a brain cell in the cerebellum. It measures about 0.005 millimeters in diameter.

standard form: 0.005
short word form: 5 thousandths
meaning: $\frac{5}{1000}$

Use place value to read a decimal or to determine the value of a digit in a decimal numeral. In the decimal system, each place has 10 times the value of the place on its right.

Hundreds 100	Tens 10	Ones 1		Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$	Read as:
5	2	1	.	8			521 and 8 tenths
	6	2	.	3	7		62 and 37 hundredths
		0	.	0	0	5	5 thousandths

The **decimal point** separates the whole number part of the decimal number from the fractional part of the decimal number. Notice that the places to the right of the decimal point end with *ths*. You say *tens* on the left side of the decimal point, but *tenths* on the right side.

To read a decimal:

Say the whole number first if there is one.
Say "and" for the decimal point.
Say the rest of the number as a whole number.
Say the place of the last digit.

For 62.37, say: "sixty-two and thirty-seven hundredths."

In 62.37, the digit 3 is in the tenths place.

Its value is three tenths or 0.3 or $3 \times \frac{1}{10}$.

Write each number in standard form.

- 36 hundredths _____
- ten and six tenths _____
- 3 and 5 hundredths _____
- twenty-seven thousandths _____

Write the digit for each place in **1,246.305**.

- tens _____
- tenths _____
- thousandths _____
- hundredths _____

Name the place value of the digit **3** in each number.

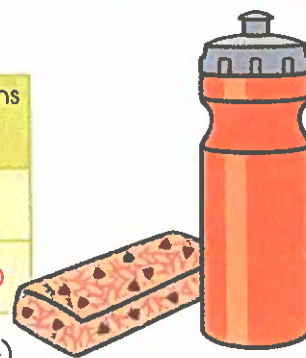
- 45.3 _____
- 0.13 _____
- 3,004 _____

Decimals in Expanded Form

Another way to expand decimals is by adding products.

Hundreds 100	Tens 10	Ones 1		Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
7	9	2	.	8	4	1
(7×100)	(9×10)	(2×1)	.	$(8 \times \frac{1}{10})$	$(4 \times \frac{1}{100})$	$(1 \times \frac{1}{1000})$

$$792.841 = (7 \times 100) + (9 \times 10) + (2 \times 1) + (8 \times \frac{1}{10}) + (4 \times \frac{1}{100}) + (1 \times \frac{1}{1000})$$



Write each decimal in expanded form like the example above.

1. 7.914 _____

2. 52.638 _____

3. 910.342 _____

4. 48.795 _____

5. 371.426 _____

6. 8.194 _____

7. 99.503 _____

8. 624.597 _____



Compare and Order Decimals

Compare decimals using the symbols $<$ (less than), $>$ (greater than), or $=$ (equal to).

Line up the decimal points.	Look at the digits from left to right. Find the first place where the digits are different.	Compare the values of the digits. The numbers compare the same way. Use symbols to show the comparison.
$\begin{array}{r} 65.29 \\ 65.92 \end{array}$	$\begin{array}{r} 65.29 \\ 65.92 \\ \uparrow \text{different} \end{array}$	$\frac{2}{10} \text{ is less than } \frac{9}{10}.$ $65.29 \text{ is less than } 65.92.$ $65.29 < 65.92$

Compare the numbers. Write $<$, $>$ or $=$.

1. 4.53 \bullet 4.28

2. 93.15 \bullet 9.315

3. 7.49 \bullet 7.94

4. 5.6 \bullet 5.60

5. 8.073 \bullet 8.703

6. 2.841 \bullet 2.814

7. 35.12 \bullet 35.012

8. 6.908 \bullet 69.08

9. 80.50 \bullet 80.5



Write the numbers in order from least to greatest.

10. 2.0 20 0.02 0.20

11. 3.75 37.50 35.70 3.57

12. 48.601 40.861 48.610 46.018



More Compare and Order Decimals

Which number is greater: 2.436 or 2.364?

Line up the decimal points.	Look at the digits from left to right. Find the first place where the digits are different.	Compare the values of the digits. The numbers compare the same way. Use symbols to show the comparison.
$\begin{array}{r} 2.436 \\ 2.364 \end{array}$	$\begin{array}{r} 2.436 \\ 2.364 \\ \uparrow \\ \text{different} \end{array}$	<p>4 tenths is greater than 3 tenths.</p> <p>2.436 is greater than 2.364.</p> <p>$2.436 > 2.364$</p>

You could also write 2.364 is less than 2.436 or $2.364 < 2.436$.

To compare more than two numbers, use the same steps. It is a good idea to write all the numbers as equivalent decimals to the same place.

Compare 3.005, 3.15, and 3.5.


$3.5 = 3.500$ 3.5 is the greatest. It has the most tenths. **3.500**
 $3.15 = 3.150$ Then compare the other two numbers. **3.150**
 $3.005 = 3.005$ 3.15 is greater. It has more hundredths. **3.005**

Compare the numbers. Write $<$, $>$ or $=$.

1. 2.85  28.5

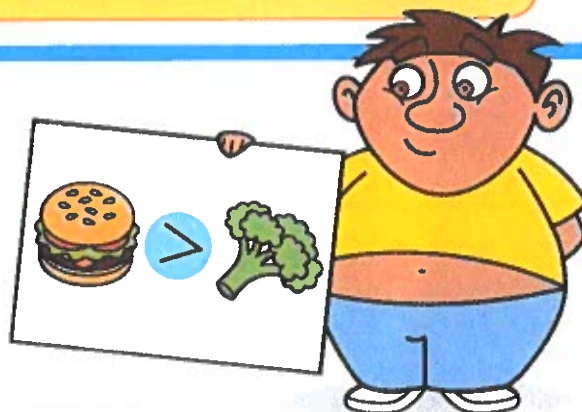
2. 2.3  2.03

3. 0.458  0.46

4. 0.008  0.800

5. 45.30  45.03

6. 0.070  0.700



Write the numbers in order from least to greatest.

7. 2.003 2.3 2.03

8. 9.4 0.94 9.04 0.984

Solve.

9. In a 200-meter race, Hannah finished in 45.42 seconds. Elena finished in 44.51 seconds, Dolores finished in 44.08 seconds, and Tamika finished in 44.24 seconds. Which girl won the race? Who came in last?
- _____

Add Decimals

To add decimals, line up the decimal points.

Remember that a decimal point can come at the end of a whole number.

$$7 = 7.0 = 7.00$$

Add:	Line up the decimal points.	Add the numbers. Be sure to put the decimal point in your answers.
80.24, 7.13, and 2	$\begin{array}{r} 80.24 \\ 7.13 \\ + 2.00 \\ \hline \end{array}$	$\begin{array}{r} 80.24 \\ 7.13 \\ + 2.00 \\ \hline 89.37 \end{array}$

Find the sum.

$$\begin{array}{r} 1. \quad 39.106 \\ + \quad 7.420 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 5.93 \\ + \quad 21.87 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 164.095 \\ + \quad 207.134 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 96.271 \\ + \quad 14.305 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 108.53 \\ + \quad 74.49 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 57.000 \\ + \quad 11.098 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 9.352 \\ + \quad 62.081 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 481.592 \\ + \quad 370.516 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 14.832 \\ + \quad 36.709 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 263.09 \\ + \quad 85.74 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 12.907 \\ + \quad 584.036 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 97.258 \\ + \quad 4.177 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 932.84 \\ + \quad 675.01 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 742.89 \\ + \quad 63.51 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 49.072 \\ + \quad 153.868 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 670.95 \\ + \quad 482.39 \\ \hline \end{array}$$

Round Decimals

Round 4.617 to the nearest hundredth.

Find the place to round to.	Look at the digit to its right. Underline it.	If the underlined digit is less than 5, round down. If the digit is 5 or greater, round up.
4.6 <u>1</u> 7 hundredth	4.6 <u>1</u> 7	4.6 <u>1</u> 7 7 > 5, so round up. 4.617 rounds to 4.62 , the nearest hundredth.

Here are more examples:

Round 0.735 to the nearest tenth. 0.735 3 < 5 Round down to **0.7**.
Round \$52.84 to the nearest dollar. \$52.84 8 > 5 Round up to **\$53**.

In the United States, the dollar and cent values are based on the decimal system. Round amounts of money the same way as decimals.

Round each number to the nearest tenth.

1. 0.172 _____

2. 8.463 _____

3. 59.12 _____

4. 0.585 _____

Round each number to the nearest hundredth.

5. 326.108 _____

6. 4.182 _____

7. 1.234 _____

8. 0.058 _____

Round each number to the nearest dollar.

9. \$6.34 _____

10. \$45.75 _____

11. \$0.78 _____

12. \$200.61 _____

Solve.

13. In 2012, Usain Bolt of Jamaica ran the 100-meter dash in 9.63 seconds. How fast is that to the nearest second? to the nearest tenth of a second?

Round Whole Numbers and Decimals

Round 573.629 to the nearest hundredth.

Find the digit in the place to round to.	Look at the digit to its right. Underline it.	If the underlined digit is less than 5, round down. If the digit is 5 or greater, round up.
573.6 <u>2</u> 9	573.6 <u>2</u> 9	573.6 <u>2</u> 9 9 > 5, so round up. 573.629 rounds to 573.63 , the nearest hundredth.

Round 48.329 to the nearest whole number: 48.329 rounds to **48**.

Round 16.594 to the nearest tenth: 16.594 rounds to **16.6**.

Round each number to the nearest hundredth.

1. 72.209 _____

2. 8.6531 _____

3. 431.738 _____

4. 16.0725 _____

Round each number to the nearest whole number.

5. 581.704 _____

6. 18.396 _____

7. 101.562 _____

8. 32.489 _____

Round each number to the nearest tenth.

9. 212.745 _____

10. 96.862 _____

11. 4.259 _____

12. 803.922 _____



Add and Subtract Decimals

When you add and subtract decimals, remember to place the decimal point in the answer.

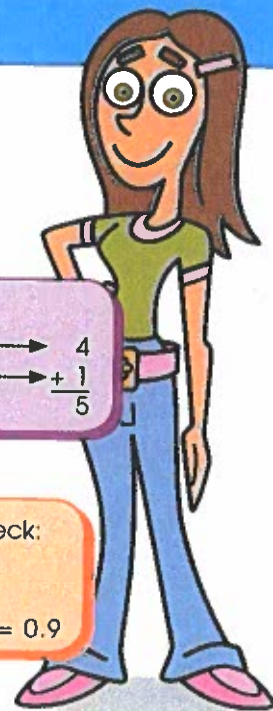
Line up the decimal points. Write equivalent decimals if needed.	Add or subtract.	Write the decimal point in the answer.
Add: $3.8 + 1.357$ $\begin{array}{r} 3.8 \\ + 1.357 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 3.800 \\ + 1.357 \\ \hline 5.157 \end{array}$	$\begin{array}{r} 1 \\ 3.800 \\ + 1.357 \\ \hline 5.157 \end{array}$
Subtract: $0.9 - 0.37$ $\begin{array}{r} 0.9 \\ - 0.37 \\ \hline \end{array}$	$\begin{array}{r} 8 \ 10 \\ 0.90 \\ - 0.37 \\ \hline 0.53 \end{array}$	$\begin{array}{r} 8 \ 10 \\ 0.90 \\ - 0.37 \\ \hline 0.53 \end{array}$

Estimate:

$$\begin{array}{r} 3.8 \rightarrow 4 \\ + 1.357 \rightarrow 1 \\ \hline 5 \end{array}$$

Add to check:

$$\begin{array}{r} 0.53 \\ + 0.37 \\ \hline 0.90 = 0.9 \end{array}$$



Find the sum or difference. Estimate or add to check your answer.

1.
$$\begin{array}{r} 4.8 \\ + 1.6 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 5.52 \\ + 9.1 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0.61 \\ + 0.9 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5.26 \\ - 0.379 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 6.021 \\ - 0.379 \\ \hline \end{array}$$

6. $8.65 - 4.079 =$ _____

7. $5.02 + 0.46 =$ _____

8. $0.723 - 0.36 =$ _____

9. $1.563 + 7.14 =$ _____

Solve.

10. Carol bought a pair of jeans for \$12.95 and a belt for \$3.79. The sales tax is \$1.01. Carol gave the store clerk a \$20.00 bill. How much change should she get back?

Multiply and Divide by Powers of 10

Here are some shortcuts to help you multiply by powers of 10.
Notice that the decimal point changes position.

To multiply by 10: Move the decimal point 1 place to the right in the other factor.	$10 \times 2.85 = 28.5$	$10 \times 0.053 = 0.53$
To multiply by 100: Move the decimal point 2 places to the right in the other factor.	$100 \times 2.85 = 285$	$100 \times 0.053 = 5.3$
To multiply by 1,000: Move the decimal point 3 places to the right in the other factor.	$1,000 \times 2.85 = 2,850$	$1,000 \times 0.053 = 53$

Here are some shortcuts to help you divide by powers of 10.

To divide by 10: Move the decimal point 1 place to the left in the dividend.	$1,824 \div 10 = 182.4$	$35.5 \div 10 = 3.55$
To divide by 100: Move the decimal point 2 places to the left in the dividend.	$1,824 \div 100 = 18.24$	$35.5 \div 100 = 0.355$
To divide by 1,000: Move the decimal point 3 places to the left in the dividend.	$1,824 \div 1,000 = 1.824$	$35.5 \div 1,000 = 0.0355$

Find the product or quotient. Use the shortcuts shown above.

1. $422 \times 10 =$ _____

2. $3.2 \times 100 =$ _____

3. $26 \div 10 =$ _____

4. $512 \div 100 =$ _____

5. $10 \times 0.06 =$ _____

6. $0.07 \times 1,000 =$ _____

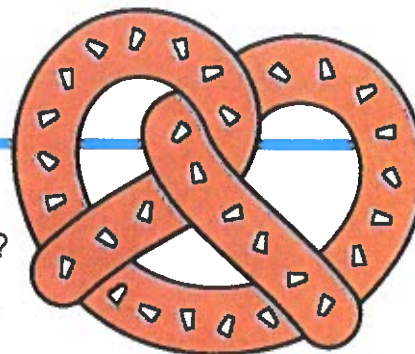
7. $22.5 \div 100 =$ _____

8. $45 \div 1,000 =$ _____

9. $1,000 \times 2.034 =$ _____

Solve.

10. Pretzels are 10 for \$2. How much does one pretzel cost?



Multiply Decimals

When you multiply decimals, be sure to write the decimal point in the correct place in the product.

Multiply like whole numbers. (You do not have to line up the decimal points.)	Count all the places to the right of the decimal point in each factor. Count the same number of places in the product and write the decimal point.
<p>Multiply 6.82×4.3</p> $\begin{array}{r} 6.82 \\ \times 4.3 \\ \hline 2046 \\ + 27280 \\ \hline 29326 \end{array}$	$\begin{array}{r} 6.82 \leftarrow 2 \text{ places} \\ \times 4.3 \leftarrow 1 \text{ place} \\ \hline 2046 \\ + 27280 \\ \hline 29.326 \leftarrow 3 \text{ places} \end{array}$ <p>The product is 29.326.</p>
<p>Multiply 0.3×0.24</p> $\begin{array}{r} 0.24 \\ \times 0.3 \\ \hline 72 \end{array}$	$\begin{array}{r} 0.24 \leftarrow 2 \text{ places} \\ \times 0.3 \leftarrow 1 \text{ place} \\ \hline 0.072 \leftarrow 3 \text{ places} \end{array}$ <p>The product is 0.072.</p>



Estimate: 6.82×4.3

$$7 \times 4 = 28$$

The product is about 28.

You may have to write some zeros as place holders in order to put the decimal point in the correct place in the product.

Estimate the product, then multiply.

1.
$$\begin{array}{r} 2.6 \\ \times 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.45 \\ \times 3.1 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0.46 \\ \times 0.8 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 32.5 \\ \times 0.7 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 7.9 \\ \times 0.52 \\ \hline \end{array}$$

6. $5.6 \times 0.53 =$ _____

7. $0.6 \times 1.2 =$ _____

8. $3.032 \times 9 =$ _____

9. $0.05 \times 4.27 =$ _____

Solve.

10. Raul ran 2.2 miles.
Inez ran 1.5 times as far.
How many miles did Inez run?



Divide Decimals by Whole Numbers

When you divide decimals by whole numbers, you must keep track of the decimal point in the quotient.

When dividing by a whole number, write the decimal point in the quotient directly above the decimal point in the dividend.

Divide 69.6 by 16

$$16 \overline{)69.6}$$

Estimate: $69.6 \div 16$

$$64 \div 16 = 4$$

Sometimes you can recognize a basic fact.

Divide like whole numbers. If there is a remainder, write more zeros in the dividend and continue to divide.

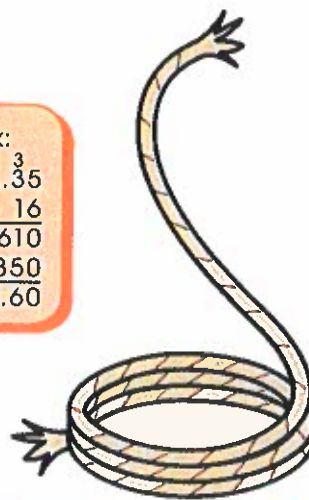
Divide 69.6 by 16

$$\begin{array}{r} 4.35 \\ 16 \overline{)69.60} \\ \underline{-64} \\ 56 \\ \underline{-48} \\ 80 \\ \underline{-80} \\ 0 \end{array}$$

The quotient is 4.35.

Check:

$$\begin{array}{r} 23 \\ 4.35 \\ \times 16 \\ \hline 2610 \\ + 4350 \\ \hline 69.60 \end{array}$$



Estimate the quotient, then divide. Check your answer.

1. $4 \overline{)20.48}$

2. $3 \overline{)\$8.52}$

3. $5 \overline{)20.75}$

4. $12 \overline{)15.84}$

5. $15 \overline{)31.5}$

6. $34 \overline{)244.8}$

7. $21 \overline{)12.6}$

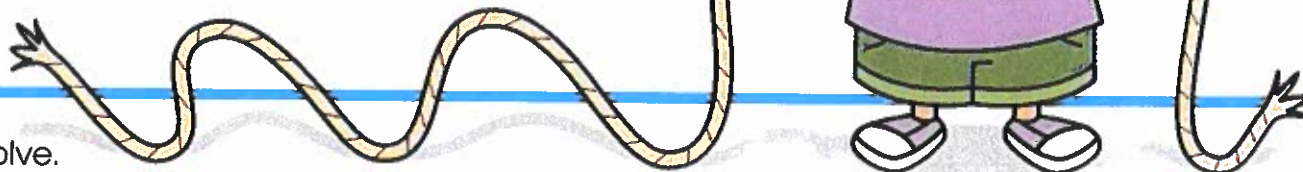
8. $36 \overline{)\$10.08}$

9. $9 \overline{)307.8}$

10. $11 \overline{)29.59}$

Solve.

11. Dave has a rope that is 21.5 feet long. If he cuts it into five equal pieces, how long will each piece be?



Unit 3-Decimals

Page 15

1. 0.36 2. 10.6
3. 3.05 4. 0.027
5. 4 6. 3 7. 5 8. 0
9. tenths
10. hundredths
11. thousands

Page 16

1. $(7 \times 1) + (9 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (4 \times \frac{1}{1000})$
2. $(50 \times 10) + (2 \times 1) + (6 \times \frac{1}{10}) + (3 \times \frac{1}{100}) + (8 \times \frac{1}{1000})$
3. $(9 \times 100) + (1 \times 10) + 0 + (3 \times \frac{1}{10}) + (4 \times \frac{1}{100}) + (2 \times \frac{1}{1000})$
4. $(4 \times 10) + (8 \times 1) + (7 \times \frac{1}{10}) + (9 \times \frac{1}{100}) + (5 \times \frac{1}{1000})$
5. $(3 \times 100) + (7 \times 10) + (1 \times 1) + (4 \times \frac{1}{10}) + (2 \times \frac{1}{100}) + (6 \times \frac{1}{1000})$
6. $(8 \times 1) + (1 \times \frac{1}{10}) + (9 \times \frac{1}{100}) + (4 \times \frac{1}{1000})$
7. $(9 \times 10) + (9 \times 1) + (5 \times \frac{1}{10}) + 0 + (3 \times \frac{1}{1000})$
8. $(6 \times 100) + (2 \times 10) + (4 \times 1) + (5 \times \frac{1}{10}) + (9 \times \frac{1}{100}) + (7 \times \frac{1}{1000})$

Page 17

1. > 2. >
3. < 4. =
5. < 6. >
7. > 8. <
9. =
10. 0.02; 0.20; 2.0; 20
11. 3.57; 3.75; 35.70; 37.50
12. 40.861; 46.018; 48.601; 48.610



Page 18

1. < 2. >
3. < 4. <
5. > 6. <

Page 19

- | | | | | |
|----------------------------|--------------|------------|-------------|--------------|
| 7. 2.003; 2.03; 2.3 | 1. 46.526 | 2. 27.80 | 3. 371.229 | 4. 110.576 |
| 8. 0.94; 0.984; 9.04; 9.4 | 5. 183.02 | 6. 68.098 | 7. 71.433 | 8. 852.108 |
| 9. Dolores finished first, | 9. 51.541 | 10. 348.83 | 11. 596.943 | 12. 101.435 |
| Hannah came in last. | 13. 1,607.85 | 14. 806.40 | 15. 202.940 | 16. 1,153.34 |

Page 20

1. 0.2 2. 8.5
3. 59.1 4. 0.6
5. 326.11 6. 4.18
7. 1.23 8. 0.06
9. \$6 10. \$46
11. \$1 12. \$201
13. 10 seconds; 9.6 seconds

Page 21

1. 72.21 2. 8.65
3. 431.74 4. 16.07
5. 582 6. 18
7. 102 8. 32
9. 212.7 10. 96.9
11. 4.3 12. 803.9

Page 27

1. 6.4 2. 14.62 3. 1.51 4. 4.881 5. 5.642
6. 4.571 7. 5.48
8. 0.363 9. 8.703
10. She should get back \$2.25.

Page 29

1. 4,220 2. 320
3. 2.6 4. 5.12
5. 0.6 6. 70
7. 0.225 8. 0.045
9. 2,034
10. One pretzel costs \$0.20, or 20¢.

Page 30

1. 10.4 2. 1.395 3. 0.368 4. 22.75 5. 4.108
6. 2.968 7. 0.72
8. 27.288 9. 0.2135
10. Inez ran 3.3 miles.

Page 31

1. 5.12 2. \$2.84 3. 4.15 4. 1.32
5. 2.1 6. 7.2 7. 0.6 8. \$0.28
9. 34.2 10. 2.69
11. Each piece will be 4.3 feet.

Unit 4–Fractions

Mixed Numbers and Improper Fractions

A **mixed number** is a number greater than 1. It is made up of a whole number and a fraction.

$1\frac{1}{5}$

$3\frac{5}{8}$

$2\frac{2}{3}$

To write a mixed number as an improper fraction:

Multiply the whole number by the denominator. Add the numerator to the product. Write the sum over the denominator.

Write $2\frac{1}{3}$ as an improper fraction:

$2 \times 3 + 1 = 7 \quad 2\frac{1}{3} = \frac{7}{3}$

An **improper fraction** is a fraction equal to or greater than 1. The numerator is equal to or greater than its denominator.

$\frac{5}{5}$

$\frac{5}{3}$

$\frac{6}{4}$

To write an improper fraction as a mixed number:

Divide the numerator by the denominator. Write the quotient as the whole number. Write the remainder as the numerator over the denominator.

Write $\frac{7}{3}$ as a mixed number:

$$\begin{array}{r} 2 \\ 3 \overline{)7} \\ \underline{-6} \\ 1 \end{array}$$

quotient
remainder
divisor

Write as an improper fraction.

1. $2\frac{1}{3} =$ _____

2. $1\frac{5}{8} =$ _____

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

4. $5\frac{1}{6} =$ _____

5. $3\frac{3}{5} =$ _____

Write as a mixed number in simplest form.

6. $\frac{21}{8} =$ _____

7. $\frac{15}{6} =$ _____

8. $\frac{12}{4} =$ _____

9. $\frac{11}{9} =$ _____

10. $\frac{45}{12} =$ _____

Solve.

11. A new soft drink called YUM is sold in six-packs. At Saul's party, the children drank 28 cans of YUM. Write a mixed number to express how many six-packs they drank.



Write $\frac{1200}{480}$ as a mixed number.

Add Fractions with Unlike Denominators

These fractions have unlike denominators.

Rewrite the fractions as equivalent fractions with common denominators.	Add the numerators. Use the common denominator.	Write the sum in simplest form.
Add: $\frac{5}{6} + \frac{2}{3}$ $\frac{5}{6} = \frac{5}{6}$ $+ \frac{2}{3} = \frac{4}{6}$ \hline	$\frac{5}{6} = \frac{5}{6}$ $+ \frac{2}{3} = \frac{4}{6}$ \hline $\frac{9}{6}$	$\frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$ The sum is $1\frac{1}{2}$.

Find the **least common denominator** (LCD) for the fractions to make it easier to simplify the answer.

Find the sum. Write the answer in simplest form.

1. $\frac{3}{4}$
 $+ \frac{1}{3}$
 \hline

2. $\frac{1}{6}$
 $+ \frac{2}{3}$
 \hline

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

4. $\frac{1}{3}$
 $+ \frac{2}{5}$
 \hline

5. $\frac{1}{8}$
 $+ \frac{3}{4}$
 \hline

6. $\frac{2}{5}$
 $+ \frac{7}{10}$
 \hline

7. $\frac{1}{6} + \frac{1}{3} + \frac{3}{4} =$ _____

8. $\frac{1}{10} + \frac{3}{10} + \frac{3}{5} =$ _____

9. $\frac{3}{8} + \frac{5}{6} + \frac{1}{2} =$ _____

Solve.

10. Lisa swam $\frac{3}{8}$ of a mile in the morning and $\frac{5}{16}$ of a mile in the afternoon.
 How far did she swim?



Subtract Fractions with Unlike Denominators

These fractions have unlike denominators.

Find the least common denominator (LCD) for the fractions to make it easier to simplify the answer.

Rewrite the fractions as equivalent fractions with common denominators.	Subtract the numerators. Use the common denominator.	Write the difference in simplest form.
Subtract: $\frac{5}{8} - \frac{7}{24}$ $\frac{5}{8} = \frac{15}{24}$ $-\frac{7}{24} = \frac{7}{24}$	$\frac{5}{8} = \frac{15}{24}$ $-\frac{7}{24} = \frac{7}{24}$ $\frac{8}{24}$	$\frac{8}{24} = \frac{1}{3}$ The difference is $\frac{1}{3}$.

Find the difference. Write the answer in simplest form.

1. $\frac{5}{6}$
 $-\frac{2}{3}$

2. $\frac{5}{8}$
 $-\frac{1}{4}$

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

4. $\frac{4}{5}$
 $-\frac{3}{10}$

5. $\frac{7}{8}$
 $-\frac{5}{6}$

6. $\frac{9}{10}$
 $-\frac{2}{5}$



7. $\frac{11}{12} - \frac{2}{3} =$ _____

8. $\frac{7}{10} - \frac{3}{8} =$ _____

9. $\frac{2}{3} - \frac{2}{5} =$ _____

Solve.

10. Bonita read her book for $\frac{3}{4}$ of an hour. Bob read his book for $\frac{2}{3}$ of an hour. Who spent more time reading? How many minutes longer?

Add Mixed Numbers

To add mixed numbers:

Rewrite the fractional parts as equivalent fractions with a common denominator.	Add the fractions. Add the whole numbers.	Write the sum in simplest form.
<p>Add: $2\frac{2}{5} + 4\frac{1}{3}$</p> $\begin{array}{r} 2\frac{2}{5} = 2\frac{6}{15} \\ + 4\frac{1}{3} = 4\frac{5}{15} \\ \hline \end{array}$	$\begin{array}{r} 2\frac{2}{5} = 2\frac{6}{15} \\ + 4\frac{1}{3} = 4\frac{5}{15} \\ \hline 6\frac{11}{15} \end{array}$	<p>$6\frac{11}{15}$ is in its simplest form.</p> <p>The sum is $6\frac{11}{15}$.</p>
<p>Add: $1\frac{5}{6} + 4\frac{2}{3}$</p> $\begin{array}{r} 1\frac{5}{6} = 1\frac{5}{6} \\ + 4\frac{2}{3} = 4\frac{4}{6} \\ \hline \end{array}$	$\begin{array}{r} 1\frac{5}{6} = 1\frac{5}{6} \\ + 4\frac{2}{3} = 4\frac{4}{6} \\ \hline 5\frac{9}{6} \end{array}$	<p>$5\frac{9}{6} = 5 + 1\frac{3}{6} = 6\frac{3}{6} = 6\frac{1}{2}$</p> <p>The sum is $6\frac{1}{2}$.</p>

You can use rounding to check your answers.

Check:

$$\begin{array}{r} 2\frac{2}{5} \rightarrow 2 \\ + 4\frac{1}{3} \rightarrow 4 \\ \hline 6 \end{array}$$

Check:

$$\begin{array}{r} 1\frac{5}{6} \rightarrow 2 \\ + 4\frac{2}{3} \rightarrow 5 \\ \hline 7 \end{array}$$

Find the sum. Write the answer in simplest form.

1. $4\frac{1}{5} + 1\frac{3}{10} =$

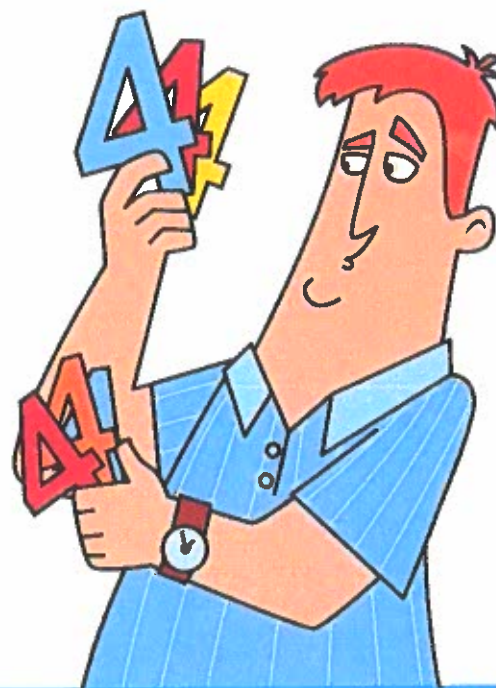
2. $6\frac{1}{4} + 3\frac{4}{5} =$

3. $4\frac{3}{4} + 2\frac{2}{3} =$

4. $1\frac{7}{8} + 3\frac{5}{6} =$

5. $2\frac{2}{3} + 1\frac{4}{9} =$

6. $3\frac{1}{4} + 5\frac{7}{10} + 3\frac{2}{5} =$



Use six 4s to make a sum of 10.

Subtract Mixed Numbers

To subtract mixed numbers:

Rewrite the fractional parts as equivalent fractions with common denominators.	Subtract the fractions. Regroup if needed. Subtract the whole numbers.	Write the difference in simplest form.
Subtract: $4\frac{7}{12} - 2\frac{1}{4}$ $4\frac{7}{12} = 4\frac{7}{12}$ $- 2\frac{1}{4} = 2\frac{3}{12}$	$4\frac{7}{12} = 4\frac{7}{12}$ $- 2\frac{1}{4} = 2\frac{3}{12}$ $2\frac{4}{12}$	$2\frac{4}{12} = 2\frac{1}{3}$ The difference is $2\frac{1}{3}$.
Subtract: $3\frac{1}{2} - 1\frac{5}{8}$ $3\frac{1}{2} = 3\frac{4}{8}$ $- 1\frac{5}{8} = 1\frac{5}{8}$	$3\frac{1}{2} = 3\frac{4}{8} = 2\frac{12}{8}$ $- 1\frac{5}{8} = 1\frac{5}{8} = 1\frac{5}{8}$ $1\frac{7}{8}$	Regroup: $3\frac{4}{8} = 2 + 1\frac{4}{8} = 2\frac{12}{8}$ The difference is $1\frac{7}{8}$.

You can add to check your answers.

Check:

$$2\frac{1}{3} = 2\frac{4}{12}$$

$$+ 2\frac{1}{4} = 2\frac{3}{12}$$

$$4\frac{7}{12}$$

Find the difference. Write the answer in simplest form.

1. $4\frac{2}{3}$
 $- 1\frac{1}{6}$

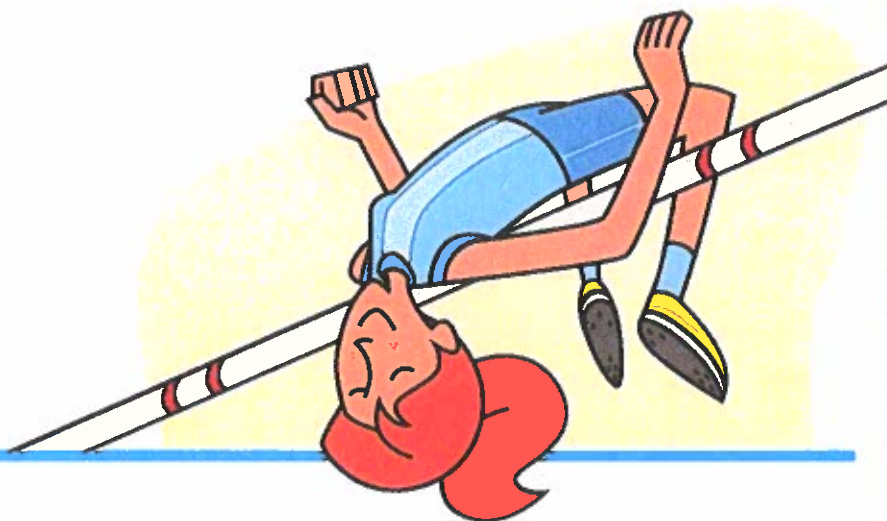
2. $5\frac{4}{5}$
 $- 2\frac{1}{10}$

3. $8\frac{1}{8}$
 $- 3\frac{5}{6}$

4. $6\frac{1}{4} - 3\frac{3}{4} =$ _____

5. $7\frac{1}{3} - 2\frac{3}{5} =$ _____

6. $5 - 2\frac{1}{4} =$ _____



Solve.

7. The school high-jump record was $6\frac{2}{3}$ feet. Natasha jumped $7\frac{1}{4}$ feet. By how many feet did she break the record?

Estimate with Mixed Numbers

You can use rounding to estimate the sums and differences of mixed numbers.

Round each mixed number to the nearest whole number.	Add or subtract the rounded numbers.
<p>Estimate: $1\frac{3}{4} + 2\frac{1}{3} + 2\frac{7}{8}$</p> $\begin{array}{r} 1\frac{3}{4} + 2\frac{1}{3} + 2\frac{7}{8} \\ \downarrow \quad \downarrow \quad \downarrow \\ 2 + 2 + 3 \end{array}$	<p>$2 + 2 + 3 = 7$ The sum is about 7.</p>
<p>Estimate: $16\frac{2}{5} - 9\frac{5}{6}$</p> $\begin{array}{r} 16\frac{2}{5} - 9\frac{5}{6} \\ \downarrow \quad \downarrow \\ 16 - 10 \end{array}$	<p>$16 - 10 = 6$ The difference is about 6.</p>



Round each fraction or mixed number to the nearest whole number.

1. $8\frac{7}{8}$ _____ 2. $5\frac{1}{2}$ _____ 3. $2\frac{2}{3}$ _____ 4. $\frac{1}{5}$ _____

Estimate the sum or difference.

5. $2\frac{1}{3} + 5\frac{1}{2} =$ _____

6. $8\frac{7}{8} - 3\frac{1}{5} =$ _____

7. $3\frac{1}{2} + 2\frac{2}{3} + 4\frac{3}{4} =$ _____

8. $7\frac{3}{10} - 1\frac{4}{5} =$ _____

9. $3\frac{9}{10} - \frac{1}{5} =$ _____

10. $4\frac{1}{4} + 2\frac{7}{8} + 2\frac{4}{5} =$ _____

Solve.

11. Marcia watched television for $1\frac{1}{2}$ hours on Monday, $3\frac{3}{4}$ hours on Tuesday, and $1\frac{1}{4}$ hours on Wednesday. About how many hours did she spend watching television? Can you find the exact number of hours using mental math? Explain.

Multiply Fractions

To multiply fractions:

Multiply the numerators.	Multiply the denominators.	Write the product in simplest form.
Multiply: $\frac{2}{3} \times \frac{5}{8}$ $\frac{2}{3} \times \frac{5}{8} = \frac{10}{24}$	$\frac{2}{3} \times \frac{5}{8} = \frac{10}{24}$	$\frac{10}{24} = \frac{5}{12}$ The product is $\frac{5}{12}$.

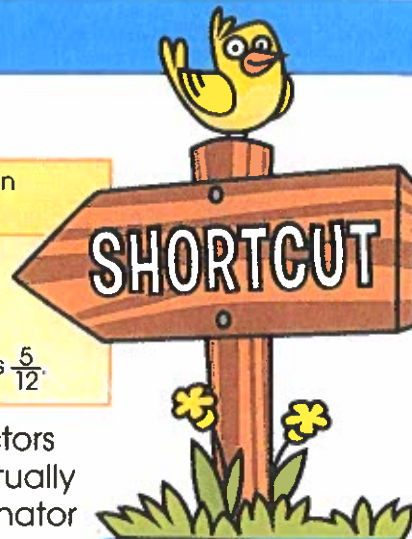
You can use a shortcut called **canceling** to simplify the factors before multiplying. The shortcut works because you are actually finding the common factors of the numerator and denominator and they cancel each other out.

Recognize common factors in the numerator and denominator.	Multiply the numerators. Multiply the denominators.	Write the product in simplest form.
Multiply: $\frac{2}{3} \times \frac{5}{8}$ $\frac{2}{3} \times \frac{5}{8} =$ 2 is a factor of 2 and 8. $2 \div 2 = 1$ $8 \div 2 = 4$	$\frac{1}{3} \times \frac{5}{4} = \frac{5}{12}$	The product is $\frac{5}{12}$.

If one of the factors is a whole number, rewrite the whole number as an improper fraction with a denominator of 1.

$$\frac{2}{3} \times 8 = \frac{2}{3} \times \frac{8}{1} = \frac{16}{3} = 5\frac{1}{3}$$

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



Find the product. Write the answer in simplest form.

1. $\frac{1}{2} \times \frac{1}{6} =$ _____

2. $\frac{1}{4} \times \frac{8}{9} =$ _____

3. $\frac{5}{8} \times \frac{3}{5} =$ _____

4. $\frac{2}{3} \times \frac{3}{4} =$ _____

5. $6 \times \frac{3}{4} =$ _____

6. $\frac{3}{5} \times 4 =$ _____

7. $\frac{3}{8} \times \frac{4}{5} =$ _____

8. $\frac{2}{5} \times 4 \times \frac{5}{8} =$ _____

9. $\frac{3}{4} \times \frac{1}{2} \times \frac{2}{3} =$ _____



Multiply Mixed Numbers

You must rewrite mixed numbers as improper fractions before you can multiply. Also, remember to rewrite whole numbers as improper fractions.

Write the mixed numbers as improper fractions.	Multiply the numerators. Multiply the denominators.	Write the product in simplest form.
Multiply: $1\frac{2}{3} \times 2\frac{1}{4}$ $1\frac{2}{3} \times 2\frac{1}{4}$ $\downarrow \quad \downarrow$ $\frac{5}{3} \times \frac{9}{4} =$	$\frac{5}{3} \times \frac{9}{4} = \frac{45}{12}$	$\frac{45}{12} = 3\frac{9}{12} = 3\frac{3}{4}$ The product is $3\frac{3}{4}$.

You can use estimation to check your answer.

Check:

$$1\frac{2}{3} \times 2\frac{1}{4}$$

$$\downarrow \quad \downarrow$$

$$2 \times 2 = 4$$

Find the product. Write the answer in simplest form.

1. $1\frac{1}{2} \times 1\frac{2}{3} =$ _____

2. $3\frac{1}{3} \times 1\frac{4}{5} =$ _____

3. $1\frac{2}{3} \times 6 =$ _____

4. $2\frac{1}{4} \times 3\frac{1}{2} =$ _____

5. $\frac{1}{2} \times 1\frac{1}{5} =$ _____

6. $5\frac{1}{3} \times \frac{3}{8} =$ _____

7. $10\frac{1}{2} \times 1\frac{1}{3} =$ _____

8. $1\frac{3}{4} \times 1\frac{2}{3} =$ _____

9. $1\frac{2}{3} \times 4 \times 1\frac{1}{2} =$ _____



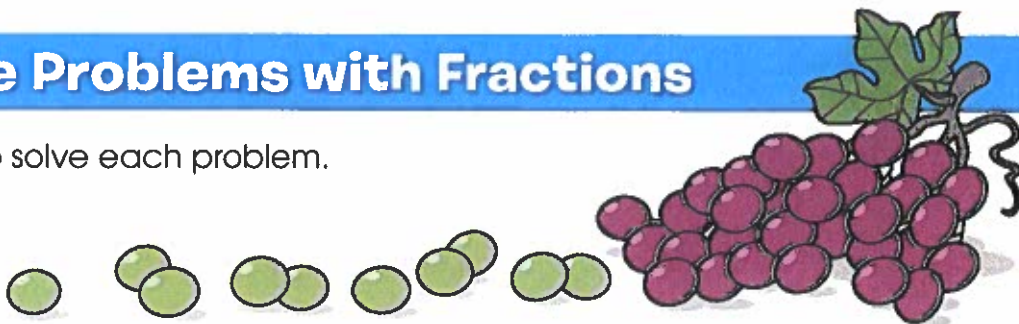
Solve.

$$(2\frac{1}{2} \times \frac{2}{3}) - 1\frac{1}{6}$$



Solve Problems with Fractions

Multiply to solve each problem.



1. Ms. Li is weaving a rug that is $3\frac{1}{2}$ feet by $4\frac{2}{3}$ feet.
What is the area of her rug?

2. Josh bought 33 grapes and $\frac{2}{3}$ of them were red.
How many red grapes did Josh buy?

3. Ashley ran $2\frac{7}{8}$ miles on Monday and by the end of the week she had run three times that distance. How far had Ashley run that week?

4. Miguel has a coin collection with 75 coins. $\frac{3}{5}$ of the coins are quarters.
How many quarters does Miguel have?

5. Mr. Howard is going to paint a mural that is $7\frac{1}{3}$ feet by $5\frac{2}{3}$ feet.
What is the total area of the mural he will paint?

6. Taylor bought a length of fabric to make curtains. The fabric is $1\frac{1}{8}$ yards wide and $6\frac{1}{2}$ yards long. What is the total area of the fabric?

7. Brad took a test that had 125 problems. He answered $\frac{4}{5}$ of the problems correctly.
How many problems did Brad answer correctly?

8. Mrs. West sent home 40 field trip forms with her students. So far, $\frac{3}{4}$ of the forms have been returned. How many forms still need to be turned in?

Divide Fractions with Reciprocals

One way to divide fractions is to multiply by the **reciprocal** of the divisor.

The product of a number and its reciprocal is 1. For example, the reciprocal of $\frac{3}{4}$ is $\frac{4}{3}$.

Rewrite a division problem as a multiplication problem. Use the reciprocal of the divisor as the second factor.	Multiply the fractions.	Simplify the quotient. Check your answer.
Divide: $4 \div \frac{2}{3}$ $\frac{4}{1} \times \frac{3}{2} =$	$\frac{4}{1} \times \frac{3}{2} = \frac{12}{2}$	$\frac{12}{2} = 6$ The quotient is 6. Check: $\frac{2}{3} \times 6 = 4$
Divide: $\frac{3}{5} \div 3$ $\frac{3}{5} \times \frac{1}{3} =$	$\frac{3}{5} \times \frac{1}{3} = \frac{3}{15}$	$\frac{3}{15} = \frac{1}{5}$ The quotient is $\frac{1}{5}$. Check: $3 \times \frac{1}{5} = \frac{3}{5}$

Find the quotient. Write the answer in simplest form.

1. $5 \div \frac{3}{4} =$ _____

2. $\frac{7}{8} \div \frac{1}{4} =$ _____

3. $\frac{1}{2} \div 4 =$ _____

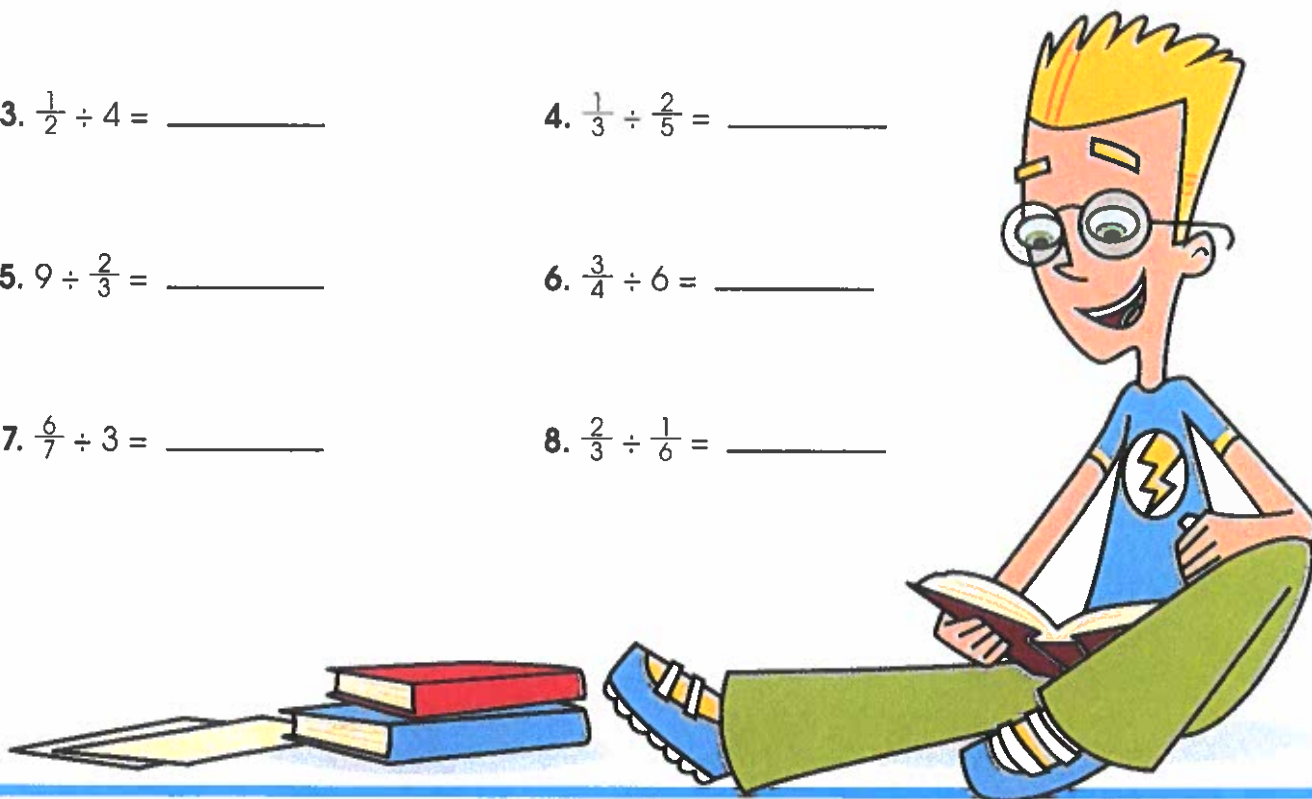
4. $\frac{1}{3} \div \frac{2}{5} =$ _____

5. $9 \div \frac{2}{3} =$ _____

6. $\frac{3}{4} \div 6 =$ _____

7. $\frac{6}{7} \div 3 =$ _____

8. $\frac{2}{3} \div \frac{1}{6} =$ _____



Divide Mixed Numbers

To divide mixed numbers, rewrite the mixed numbers as improper fractions. Then multiply by the reciprocal of the divisor.

Rewrite any mixed numbers as improper fractions.	Write the problem as a multiplication problem. Use the reciprocal of the divisor as a factor. Multiply.	Write the answer in simplest form. Check your answer.
Divide: $2\frac{1}{2} \div \frac{3}{4}$ $\frac{5}{2} \div \frac{3}{4} =$	$\frac{5}{2} \times \frac{4}{3} =$ $\frac{5}{2} \times \frac{4}{3} = \frac{20}{6}$	$\frac{20}{6} = 3\frac{2}{6} = 3\frac{1}{3}$ The quotient is $3\frac{1}{3}$. Check: $\frac{10}{3} \times \frac{3}{4} = \frac{30}{12} = 2\frac{1}{2}$
Divide: $3\frac{1}{3} \div 1\frac{7}{8}$ $\frac{10}{3} \div \frac{15}{8} =$	$\frac{10}{3} \times \frac{8}{15} =$ $\frac{10}{3} \times \frac{8}{15} = \frac{80}{45}$	$\frac{80}{45} = 1\frac{35}{45} = 1\frac{7}{9}$ The quotient is $1\frac{7}{9}$. Check: $\frac{15}{8} \times \frac{16}{9} = \frac{240}{72} = 3\frac{1}{3}$

Find the quotient. Write the answer in simplest form.

1. $1\frac{1}{3} \div \frac{3}{4} =$ _____

2. $\frac{7}{8} \div 2\frac{1}{4} =$ _____

3. $5\frac{1}{2} \div \frac{2}{3} =$ _____

4. $2\frac{2}{5} \div \frac{1}{3} =$ _____

5. $1\frac{1}{2} \div \frac{1}{5} =$ _____

6. $3\frac{2}{3} \div 1\frac{1}{6} =$ _____

7. $2\frac{1}{4} \div \frac{3}{8} =$ _____

8. $3\frac{1}{3} \div \frac{1}{2} =$ _____



Unit 4- Fractions

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1. $\frac{7}{5}$ 2. $\frac{13}{8}$ 3. $\frac{17}{5}$
4. $\frac{31}{6}$ 5. $\frac{18}{5}$
6. $2\frac{5}{8}$ 7. $2\frac{1}{2}$ 8. 3
9. $1\frac{2}{3}$ 10. $3\frac{3}{4}$
11. They drank $4\frac{2}{3}$ six packs
- Challenge: $2\frac{1}{2}$

Page 34

1. $1\frac{1}{12}$ 2. $\frac{5}{8}$ 3. $\frac{5}{8}$
4. $\frac{11}{15}$ 5. $\frac{7}{8}$ 6. $1\frac{1}{10}$
7. $1\frac{1}{4}$ 8. 1
9. $1\frac{17}{24}$
10. Lisa swam $\frac{11}{16}$ of a mile.

Page 35

1. $\frac{1}{6}$ 2. $\frac{3}{8}$ 3. $\frac{1}{24}$
4. $\frac{1}{2}$ 5. $\frac{1}{24}$ 6. $\frac{1}{2}$
7. $\frac{1}{4}$ 8. $\frac{13}{40}$
9. $\frac{4}{15}$
10. Bonita spent more time reading; $\frac{1}{12}$ of an hour longer or 5 minutes longer.



Page 36

1. $5\frac{1}{2}$ 2. $10\frac{1}{20}$ 3. $7\frac{5}{12}$
4. $5\frac{17}{24}$
5. $4\frac{1}{9}$
6. $12\frac{7}{20}$
- Brain Boggler: $\frac{4}{4} + \frac{4}{4} + 4 + 4 = 10$



Page 37

1. $3\frac{1}{2}$ 2. $3\frac{7}{10}$ 3. $4\frac{7}{24}$
4. $2\frac{1}{2}$
5. $4\frac{11}{15}$
6. $2\frac{3}{4}$
7. Nate broke the record by $\frac{7}{12}$ of a foot.

Page 38

1. 9 2. 6 3. 3 4. 0
5. about 8 6. about 6
7. about 12 8. about 5
9. about 4 10. about 10
11. about 7 hours; yes;
 $\frac{3}{4}$ and $\frac{1}{4} = 1$,
 so $3\frac{3}{4}$ and $1\frac{1}{4}$ are 5.
 5 and $1\frac{1}{2} = 6\frac{1}{2}$.

Page 39

1. $\frac{1}{12}$ 2. $\frac{2}{6}$
3. $\frac{3}{8}$ 4. $\frac{1}{2}$
5. $4\frac{1}{2}$ 6. $2\frac{2}{5}$
7. $\frac{3}{10}$ 8. 1
9. $\frac{1}{4}$

**Page 40**

1. $2\frac{1}{2}$ 2. 6
3. 10 4. $7\frac{7}{8}$
5. $\frac{3}{5}$ 6. 2
7. 14 8. $2\frac{11}{12}$
9. 10

Brain Boggler: $\frac{1}{2}$

Page 43

1. $16\frac{1}{3}$ square feet
2. 22 red grapes
3. $8\frac{5}{8}$ miles
4. 45 quarters
5. $41\frac{5}{8}$ square feet
6. $7\frac{5}{16}$ square yards
7. 100 problems
8. 10 forms

Page 45

1. $6\frac{2}{3}$ 2. $3\frac{1}{2}$
3. $\frac{1}{8}$ 4. $\frac{5}{8}$
5. $13\frac{1}{2}$ 6. $\frac{1}{8}$
7. $\frac{2}{7}$ 8. 4

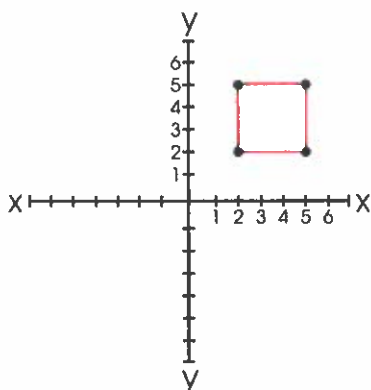
Page 46

1. $1\frac{7}{6}$ 2. $\frac{7}{18}$
3. $8\frac{1}{4}$ 4. $7\frac{1}{5}$
5. $7\frac{1}{2}$ 6. $3\frac{1}{7}$
7. 6 8. $6\frac{2}{3}$

Unit 5–Geometry

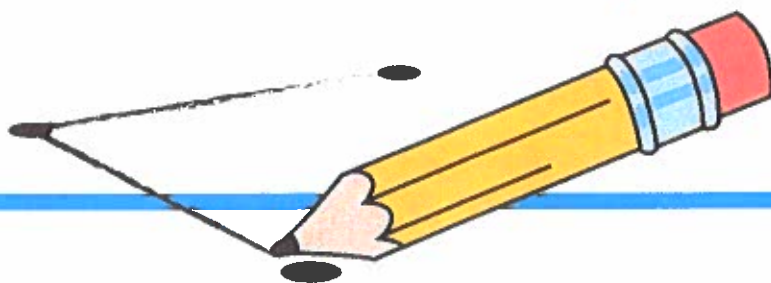
Using a Coordinate Grid

Use a coordinate grid to plot geometric figures and find locations.

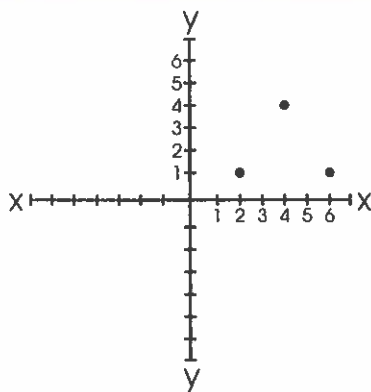


Draw lines to connect the coordinates (2, 2) and (2, 5), (2, 5) and (5, 5), (5, 5) and (5, 2), (5, 2) and (2, 2).

What shape have you drawn? a square



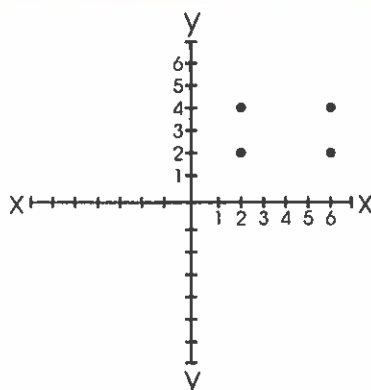
1.



Name the coordinates shown on this grid.

When you connect the coordinates with lines, what shape have you drawn?

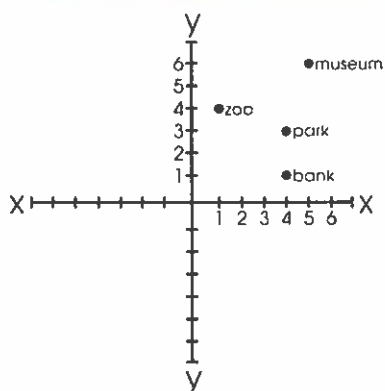
2.



Name the coordinates shown on this grid.

When you connect the coordinates with lines, what shape have you drawn?

3.



Where are the following places found on this grid?

Bank: _____

Zoo: _____

Park: _____

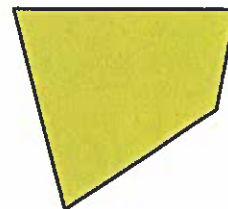
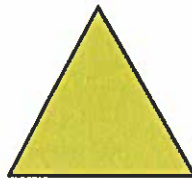
Museum: _____



Properties of Geometric Figures

Different geometric figures have different properties.
Read the properties of different geometric figures
and determine which shapes have those properties.

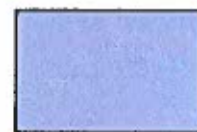
1. A quadrilateral is a four-sided polygon.
Circle the quadrilaterals.



2. A parallelogram is a four-sided polygon with two pairs of congruent and parallel sides.
Circle the parallelograms.



3. A rectangle is a parallelogram with four right angles.
Circle the rectangles.



4. A rhombus is a parallelogram with all four sides equal in length.
Circle the rhombi.



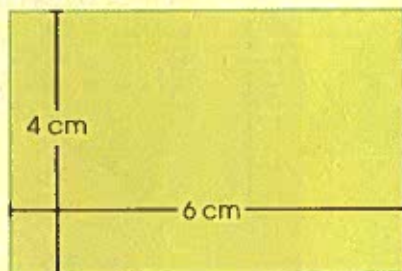
5. A square is a parallelogram with four equal sides and four right angles.
Circle the squares.



Perimeter and Area

The **perimeter** is the distance around a figure. Perimeter is measured in linear units. The **area** is the number of square units needed to cover a figure. Area is measured in square units.

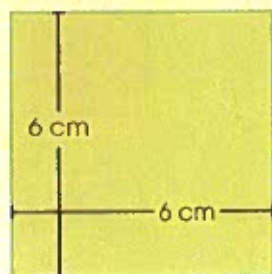
Perimeter and area of a rectangle:



$P = 2 \text{ lengths} + 2 \text{ widths}$
 $P = 2l + 2w$
 $P = (2 \times 6) + (2 \times 4)$
 $P = 12 + 8$
 $P = 20$
 The perimeter is 20 cm.

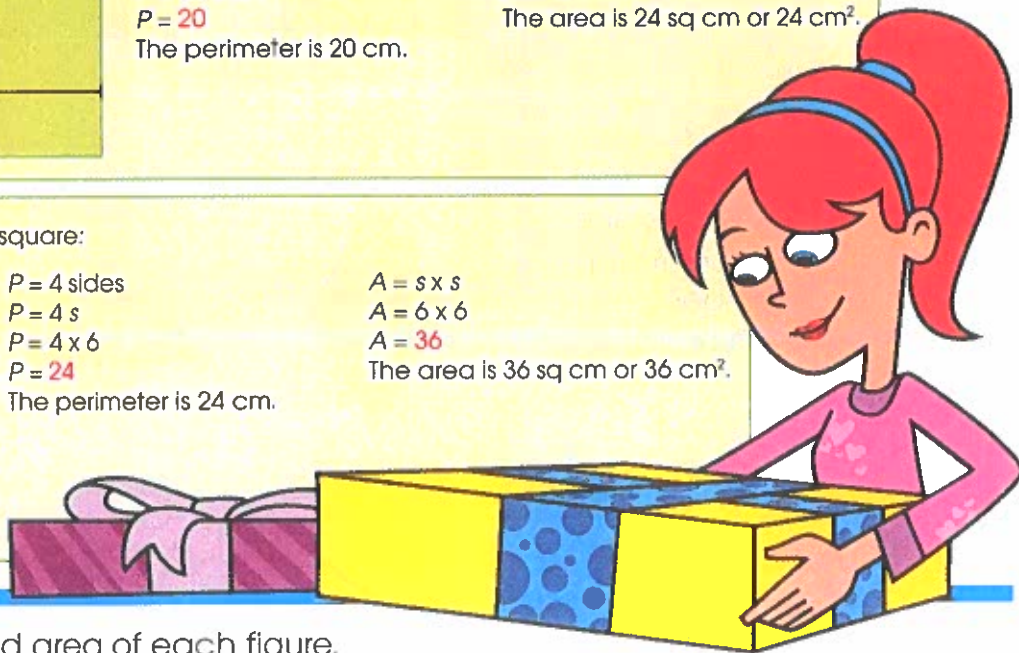
$A = \text{length} \times \text{width}$
 $A = l \times w$
 $A = 6 \times 4$
 $A = 24$
 The area is 24 sq cm or 24 cm².

Perimeter and area of a square:



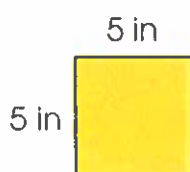
$P = 4 \text{ sides}$
 $P = 4s$
 $P = 4 \times 6$
 $P = 24$
 The perimeter is 24 cm.

$A = s \times s$
 $A = 6 \times 6$
 $A = 36$
 The area is 36 sq cm or 36 cm².



Find the perimeter and area of each figure.

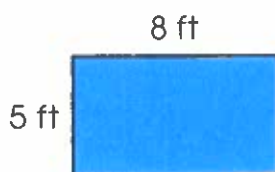
1.



perimeter _____

area _____

2.



perimeter _____

area _____

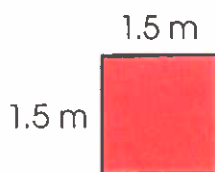
3.



perimeter _____

area _____

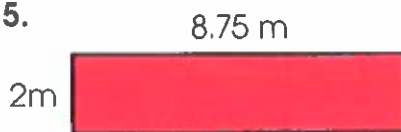
4.



perimeter _____

area _____

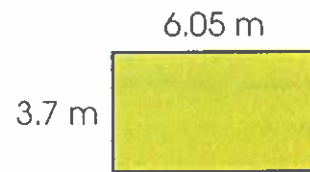
5.



perimeter _____

area _____

6.



perimeter _____

area _____

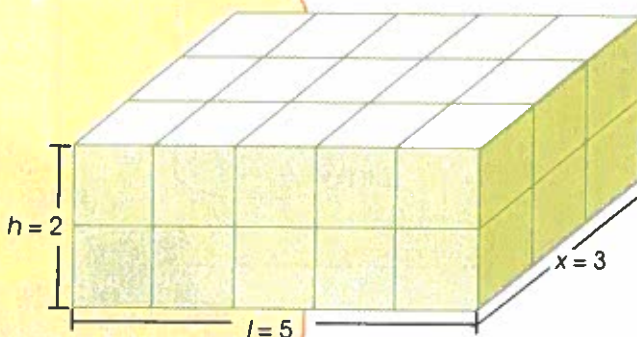
Volume of Rectangular Prisms

Volume is a measurement of the space taken up by a solid figure. Volume is measured in cubic units, such as cubic centimeters (cm^3), cubic meters (m^3), cubic feet (ft^3), or cubic yards (yd^3).

A **rectangular prism** is a solid shape made up of layers of cubic units.

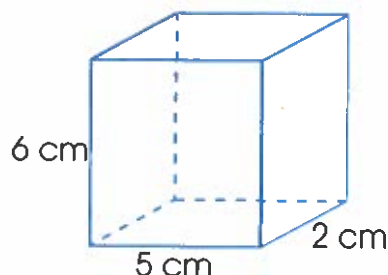
Find the volume of a rectangular prism.
Each layer is 5×3 or 15 cm^3 .
There are two layers.
 $2 \times 15 = 30$
Volume = 30 cm^3

To find the volume of any rectangular prism:
Volume = length \times width \times height
 $V = l \times w \times h$
 $V = 5 \times 3 \times 2$
 $V = 30 \text{ cm}^3$

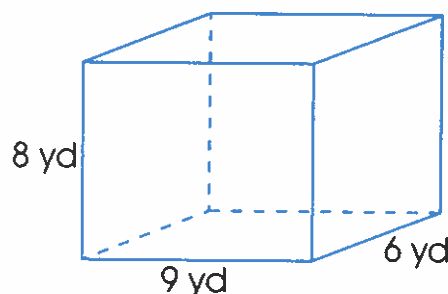


Find the volume.

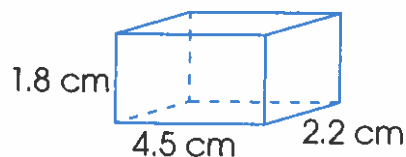
1.



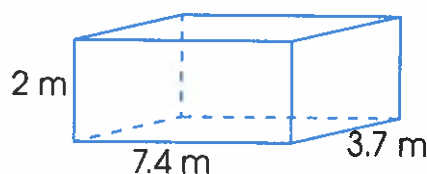
2.



3.



4.



Solve.

- What is the volume of a boxcar that is 16 ft wide, 26 ft long, and 10 ft high? _____
- An aquarium is 80 cm long, 40 cm wide, and 40 cm high. What is its volume? _____

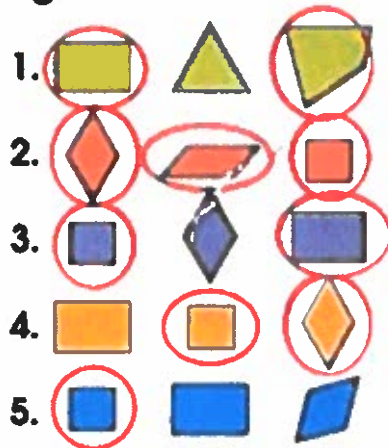


Unit 5-Geometry

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1. (2,1) (4,4) (6,1)
a triangle
2. (2, 2) (2, 4) (6, 2) (6, 4)
a rectangle
3. Bank: (4,1)
Zoo: (1,4)
Park: (4,3)
Museum: (5,6)

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- | | | |
|---------------------|---------------------|-----------------------|
| 1. 20 in | 2. 26 ft | 3. 16.8 cm |
| 25 in ² | 40 ft ² | 17.64 cm ² |
| 4. 6 m | 5. 21.5 m | 6. 19.5 m |
| 2.25 m ² | 17.5 m ² | 22.385 m ² |

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- | | | |
|------------------------|-----------------------|-----------------------|
| 1. 20 in ² | 2. 21 ft ² | 3. 30 cm ² |
| 4. 33 in ² | 5. 6 yd ² | 6. 67.5 ² |
| 7. 110 cm ² | | |
| 8. 6 ft | | |

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- | | |
|----------------------------|-------------------------|
| 1. 60 cm ³ | 2. 432 yd ³ |
| 3. 17.82 cm ³ | 4. 54.76 m ³ |
| 5. 4,160 ft ³ | |
| 6. 128,000 cm ³ | |