HARCOURT

Math

Practice Workbook

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Grade 4

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CONTENTS

Name _____

LESSON 1.1

Benchmark Numbers

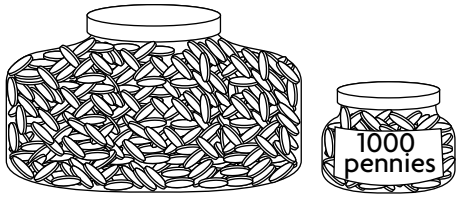
Vocabulary

Fill in the blank.

1. A _____ number is a point of reference. Benchmark numbers are often used to show number relationships.

Use the benchmark to decide which is the more reasonable number.

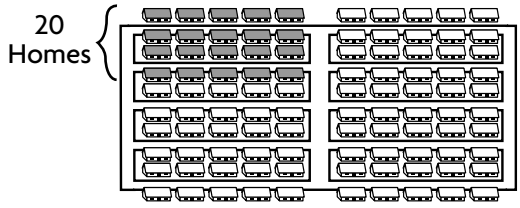
2. Pennies in the jar



500 or 5,000

_____

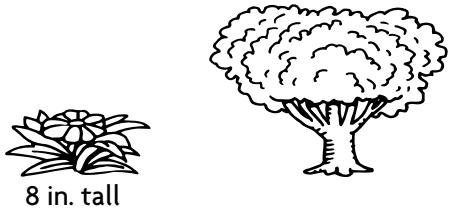
3. Houses in the neighborhood



100 or 1,000

_____

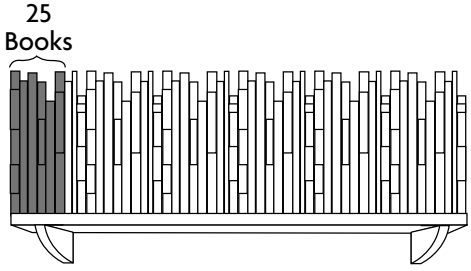
4. Height of a shrub



20 inches or 200 inches

_____

5. Books on a shelf



200 or 2,000

_____

Mixed Review

6. 3 + 8	**7.** 9 + 5	**8.** 16 + 12	**9.** 24 + 51	**10.** 45 + 22
11. 31 + 18	**12.** 44 + 29	**13.** 35 − 17	**14.** 35 − 27	**15.** 59 − 31

16. 12 +11 _____ **17.** 19 + 49 _____ **18.** 62 + 21 _____

Name _____ LESSON 1.2

Understand Place Value

Write the value of the digit 3 in each number.

1. 4,389 _____ **2.** 3,270 _____ **3.** 56,223 _____ **4.** 78,530 _____

Compare the digits to find the value of the change.

5. 67,335 to 47,335 _____ **6.** 45,289 to 45,889 _____ **7.** 48,367 to 42,367 _____

Change the value of the number by the given amount.

8. 2,305 decreased by 200 _____

9. 72,358 increased by 6,000 _____

10. 46,883 decreased by 40 _____

11. 29,402 increased by 40,000 _____

Complete.

12. 56,891 = 50,000 + _____ + 800 + 90 + 1

13. _____6,408 = 80,000 + 6,000 + 400 + 8

Mixed Review

14.
  420
  307
+ 21

15.
  818
  128
+ 66

16.
  77
  20
+ 18

17.
  213
  501
+ 190

18.
  633
  409
+ 7

19.
  100
− 22

20.
  87
− 24

21.
  98
− 69

22.
  53
− 8

23.
  110
− 56

Name _____

LESSON 1.3

Place Value Through Hundred Thousands

Vocabulary

Write the correct letter that describes each number.

1. 340,548 _____

2. 300,000 + 40,000 + 500 + 40 + 8 _____

3. three hundred forty thousand, five hundred forty-eight _____

a. expanded form

b. word form

c. standard form

Write each number in two other forms.

4. 408,377

_____

_____

_____

5. 20,000 + 600 + 30 + 2

_____

_____

_____

6. six hundred fourteen thousand, two hundred thirty-nine

_____

_____

_____

7. 892,200

_____

_____

_____

Complete.

8. 35,309 = thirty-five _____, three hundred _____ = 30,000 + _____ + 300 + 9

9. 60,000 + 4,000 + _____ + 20 + 5 = _____ thousand, eight hundred twenty-five = _____4,8_____5

Write the value of the bold digit.

10. 569,**3**94 _____ **11.** 49**5**,294 _____ **12.** **3**84,294 _____

Mixed Review

13. 39,338 − _____ = 34,338 **14.** 36 + 88 = _____ **15.** 28 − _____ = 19

Name _____ LESSON 1.4

Place Value Through Millions

Vocabulary

1. The period after *thousands* is _____.

Write the value of the bold digit.

2. 45,**5**95,445 _____

3. **3**,502,305 _____

4. **7**35,495,305 _____

Write each number in word form.

5. 6,393,203

_____

_____

_____

6. 492,203,200

_____

_____

_____

Compare the digits to find the missing number.

7. 32,615,394; 32,715,394; _____; 32,915,394

8. 5,398,394; 6,398,394; _____; 8,398,394

9. Write the standard form of the number which is 1,000,000 less than forty-five million, three hundred twelve thousand, eight hundred.

_____

10. Write 312,393,205 in expanded form.

_____

_____

_____

Mixed Review

Complete.

11. 70,000 + 8,000 + 40 + 9

_____

12. 100,000 + 60,000 + 900 + 3

_____

13. 690 − _____ = 422

14. _____ + 222 = 879

Name _____

LESSON 1.5

Problem Solving Skill

Use a Graph

The United States Department of Agriculture has named 5 food groups and recommends a maximum number of daily servings from each group.

Maximum Daily Servings	
dairy	◎ ☾
meat	◎ ☾
vegetables	◎ ◎ ☾
fruit	◎ ◎
bread and cereal	◎ ◎ ◎ ◎ ◎ ☾

Key: Each ◎ stands for 2 servings.

1. What is the maximum recommended number of meat servings?

_____

2. Which two food groups have the same number of recommended servings?

_____

3. Of which food groups can you eat more than four servings per day?

_____

4. Of which food group can you eat the most servings?

_____

5. Today, Erika ate 5 servings of meat. How would you represent this on the pictograph?

_____

6. What is the total number of fruit and vegetable servings recommended?

_____

7. Rolanda has eaten 7 servings from the bread and cereal group today. How many more servings can she have?

_____

8. At breakfast, Jamika's banana counted as 2 fruit servings. How many more fruit servings can she have today?

_____

Mixed Review

What is the value of the digit 7?

9. 1,762 _____

10. 7,900,631 _____

11. 44,072,461 _____

12. 817,535 _____

Name _____ LESSON 2.1

Compare Numbers

Write the greater number.

1. 3,568 or 3,658 _____
2. 8,468 or 8,482 _____
3. 35,689 or 34,690 _____
4. 8,948 or 21,385 _____
5. 389,584 or 388,499 _____
6. 3,843,982 or 3,847,302 _____
7. 25,679 or 22,329 _____
8. 3,457,822 or 3,458,835 _____
9. 9,248,355 or 924,835 _____

Compare. Write $<$, $>$, or $=$ in each ◯.

10. 3,489 ◯ 3,578
11. 25,899 ◯ 25,890
12. 75,673 ◯ 75,673
13. 3,142,355 ◯ 314,235
14. 33,452,236 ◯ 35,235,032

Find all of the digits that can replace each □.

15. 6□7,348 $<$ 647,348 _____
16. 35,468,245 $<$ 35,468,□45 _____

Mixed Review

17. Write 8,000,000 + 30,000 + 5,000 + 400 + 30 + 2 in standard form. _____
18. Write 32,883 in word form. _____
19. What digit is in the ten thousands place of 32,456,922? _____
20. Write the value of the digit 8 in the number 385,722? _____
21. Round 7,899 to the nearest hundred. _____
22. Round 42,616 to the nearest ten. _____

Name _____

LESSON 2.2

Order Numbers

Write the numbers in order from *least* to *greatest*.

1. 15,867; 15,394; 15,948; 15,493

_____

2. 65,447; 65,743; 65,446, 65,395

_____

3. 249,330; 247,449; 248,390

_____

4. 3,456,490; 3,458,395; 3,359,498

_____

Write the numbers in order from *greatest* to *least*.

5. 45,387; 48,339; 47,110

_____

6. 252,484; 259,793; 258,932

_____

7. 2,783,859; 2,788,394; 2,937,383

_____

8. 360,839; 45,395; 366,395

_____

9. 2,783,859; 2,788,394; 2,937,383

_____

10. 360,839; 45,395; 366,395

_____

Name all of the digits that can replace each ◯.

11. 4,599 < 4,63 ◯ < 4,634

_____

12. 3,554,684 > 3, ◯ 69,304 > 3,184,394

_____

Mixed Review

13.
$$\begin{array}{r} 25 \\ +\ 42 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 99 \\ 21 \\ +\ 86 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 95¢ \\ -\ 43¢ \\ \hline \end{array}$$

16.
$$\begin{array}{r} 78¢ \\ -\ 24¢ \\ \hline \end{array}$$

17.
$$\begin{array}{r} 13 \\ 74 \\ +\ 26 \\ \hline \end{array}$$

18. Stacey jogged for 25 minutes on Saturday and 38 minutes on Tuesday. How much longer did she jog on Tuesday than on Saturday?

_____

19. Rolanda completed 12 homework problems before dinner and 18 after dinner. How many homework problems did she complete altogether?

_____

Name _____

LESSON 2.3

Problem Solving Strategy

Make a Table

Make a table to solve.

The Sahara Desert in Africa has an area of 3,500,000 square miles. The Simpson Desert in Australia has an area of 56,000 square miles. In North America, the Mojave Desert has an area of 15,000 square miles; and the Kalahari Desert in Africa has an area of 275,000 square miles.

1. Which desert has the greatest area?

_____

2. Which two deserts are located on the same continent?

_____

3. Which desert(s) has an area of less than 100,000 square miles?

_____

4. Where is the desert with the least area located?

_____

Mixed Review

5. Write 3,000,000 + 20,000 + 5,000 + 300 + 70 + 2 in standard form.

_____

6. Write in order from least to greatest: 254,879; 2,254,920; 1,678,305; 353,502.

_____

_____

Compare. Write <, > or =.

7. 354,992 ◯ 288,492 **8.** 7,394,398 ◯ 7,394,398 **9.** 394,234 ◯ 3,294,394

10.
$$\begin{array}{r} 9{,}421{,}720 \\ -\ 6{,}198{,}135 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 210{,}076 \\ +\ 935{,}811 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 8{,}176{,}553 \\ +\ \ 30{,}602 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 172{,}442 \\ -\ 172{,}435 \\ \hline \end{array}$$

14. 786 − 421 = _____

15. 2,779 − 460 = _____

Name _____

LESSON 2.4

Round Numbers

Round each number to the nearest *thousand*.

1. 5,339 _____

2. 9,895 _____

3. 75,367 _____

4. 22,022 _____

5. 5,600,679 _____

6. 1,354,029 _____

7. 283,966 _____

8. 636,592 _____

Round each number to the place of the **bold-faced** digit.

9. **6**,333 _____

10. 8**3**7 _____

11. 8,**0**21 _____

12. 4**5**,935 _____

13. 356,8**8**2 _____

14. 5**0**2,446 _____

15. 24,**5**46 _____

16. 8**8**8,044 _____

17. **4**7,164 _____

18. **1**,999,444 _____

19. **1**,366,901 _____

20. 9,**2**03,774 _____

Mixed Review

21. $9 + 4 + 5 =$ _____

22. $27 + 33 + 59 =$ _____

23. $48 - 29 =$ _____

24. $\begin{array}{r} 6 \\ \times\ 2 \\ \hline \end{array}$

25. $\begin{array}{r} 8 \\ \times\ 5 \\ \hline \end{array}$

26. $\begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array}$

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

28. What is the value of the digit 7 in 478,394?

_____

29. What is the value of the digit 5 in 5,394,332?

_____

Name _____

LESSON 3.1

Estimate Sums and Differences

Round to the greatest place value. Estimate the sum or difference.

1. 7,379 + 5,496

2. $479,150 − $371,271

3. 612,797 + 811,035

4. 638,113 − 415,327

5. 5,324 + 2,468

6. $6,372 − $4,047

7. 721,379 + 15,496

8. $3,016 − $2,849

9. 8,492 + 1,346

10. 846,134 − 794,134

11. 461,137 + 91,214

12. $9,263 − $ 489

Write the missing digit for the estimated sum or difference.

13. □46,164 − 471,467 _____

14. 23,497 + □2,464 _____

15. 631,431 − □6,497 _____

16. □79,431 + 231,587 _____

17. □21,863 − 135,632 _____

18. 54,961 + □5,246 _____

19. □45,239 − 32,878 _____

20. 58,138 + □3,245 _____

Mixed Review

Solve.

21. 27 + 49

22. 31 + 64

23. 92 + 11

24. 87 + 34

25. 16 + 77

Name _____

LESSON 3.2

Use Mental Math Strategies

For 1–4, use the *Break apart* strategy.

1. 49 + 16 _____ **2.** 73 − 43 _____ **3.** 46 − 12 _____ **4.** 91 − 63 _____

For 5–8, use the *Make a ten* strategy.

5. 94 − 56 _____ **6.** 88 + 31 _____ **7.** 72 − 39 _____ **8.** 84 + 46 _____

For 9–28, add or subtract mentally. Tell the strategy you used.

9. 78 + 46 _____ **10.** 61 − 16 _____ **11.** 40 + 24 _____ **12.** 37 − 19 _____

13. 64 − 28 _____ **14.** 45 + 48 _____ **15.** 58 + 32 _____ **16.** 67 + 43 _____

17. 82 − 53 _____ **18.** 66 − 27 _____ **19.** 53 − 23 _____ **20.** 75 + 61 _____

21. 51 + 38 _____ **22.** 49 + 21 _____ **23.** 82 − 46 _____ **24.** 49 − 31 _____

25. 83 + 72 _____ **26.** 28 − 19 _____ **27.** 93 − 38 _____ **28.** 26 + 23 _____

Mixed Review

Round each number to the place given.

29. 568,303; ten thousand _____ **30.** 35,405,203; million _____ **31.** 596,305,003; ten million _____

Write the numbers in order from least to greatest.

32. 568,394; 395,205; 562,304 _____

33. 458,404,305; 451,402,305; 455,305,203 _____

Name _____

LESSON 3.3

Add and Subtract 4-Digit Numbers

Find the sum or difference. Estimate to check.

1. 7,503 − 3,598 _____

2. 2,178 + 3,703 _____

3. 5,527 + 2,978 + 1,852 _____

4. 3,092 + 1,574 + 1,296 _____

5. 1,468 + 1,090 _____

6. 2,714 − 1,833 _____

7. 2,131 + 1,574 + 1,078 _____

8. 2,858 + 1,670 _____

9. 4,375 + 5,839 _____

10. 4,793 + 2,988 + 8,349 _____

11. 5,707 − 2,596 _____

12. 3,872 + 2,396 + 7,236 _____

Find 13–20, find the missing digit.

13. 7,13□ − 2,467 = 4,671 _____

14. 4,135 + □,252 = 5,387 _____

15. 5,6□7 − 3,684 = 1,953 _____

16. 6,465 + 1,□68 = 8,233 _____

17. 5,□23 + 1,820 = 7,043 _____

18. 9,465 − 8,4□7 = 968 _____

19. □,254 + 2,849 = 7,103 _____

20. 6,102 − 4,58□ = 1,517 _____

Mixed Review

21. 10 + 10 + 10 + 10 = _____

22. 5 + 5 + 5 + 5 + 5 = _____

23. 42 − 21 = _____

24. 63 − 12 = _____

Name _____

LESSON 3.4

Subtract Across Zeros

Find the difference. Estimate to check.

1. 3,000 − 2,780 = _____

2. 4,003 − 2,232 = _____

3. 8,005 − 5,004 = _____

4. 6,200 − 4,816 = _____

5. 5,700 − 1,751 = _____

6. 9,100 − 3,759 = _____

7. 20,000 − 13,652 = _____

8. 10,000 − 2,842 = _____

9. 90,000 − 66,536 = _____

10. 50,000 − 13,747 = _____

11. 20,000 − 15,136 = _____

12. 50,075 − 32,097 = _____

Compare. Write <, >, or = in each ◯.

13. 2,006 − 1,513 ◯ 4,075 − 3,209

14. 7,004 − 6,315 ◯ 5,075 − 4,897

15. 8,003 − 3,695 ◯ 7,473 − 2,127

16. 9,200 − 5,861 ◯ 6,153 − 2,814

17. 3,009 − 1,819 ◯ 8,006 − 6,952

18. 4,284 − 2,651 ◯ 9,000 − 7,367

Mixed Skills

19. 16,491 + 18,034 = _____

20. 79,403 + 20,199 = _____

21. 18,662 + 88,449 = _____

22. 57,361 + 29,170 = _____

Name _____

LESSON 3.5

Add and Subtract Greater Numbers

Find the sum or difference. Estimate to check.

1. 213,742 + 170,045 _____

2. 408,587 − 345,128 _____

3. 248,232 + 236,816 _____

4. 684,004 − 195,751 _____

5. 661,119 − 423,384 _____

6. 358,379 + 264,175 _____

7. 568,075 − 372,097 _____

8. 468,951 + 236,175 _____

Compare. Write <, >, or = in each ◯.

9. 561,257 − 346,052 ◯ 846,735 − 612,435

10. 257,132 + 153,087 ◯ 210,735 + 128,307

11. 976,034 − 780,347 ◯ 461,597 − 265,910

Find the missing digit.

12. 4□6,341 − 275,132 _____

13. 682,318 − 248,1□6 _____

14. 945,132 + 153,□02 = 1,098,734 _____

Mixed Review

Estimate. Then find the exact sum or difference.

15. 6,842 + 2,981 _____

16. 1,132 + 2,074 + 2,596 _____

17. 4,008 − 2,567 _____

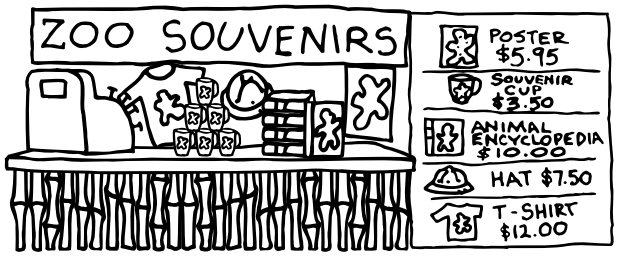
18. 6,921 − 4,071 = _____

19. 3,460 − 782 = _____

Name _____

Estimate or Find Exact Answers

Tell whether an estimate or an exact answer is needed. Solve.



Item	Price
Poster	$5.95
Souvenir Cup	$3.50
Animal Encyclopedia	$10.00
Hat	$7.50
T-shirt	$12.00

1. Mitchell bought a hat and a poster. How much change will he get from $20.00?

_____

2. About how much money does someone need to buy one of each item?

_____

3. Tracy wants to buy a t-shirt and a souvenir cup. If she has $15.00, does she have enough? Explain your answer.

_____

4. Maurice had $15.00. He bought a hat. About how much money is left? Is it enough to buy a poster?

_____

5. Tanisha and Shauna want to share the Animal Encyclopedia. Tanisha has $4.75 and Shauna has $3.25. How much more money do they need to buy the book?

_____

6. D'Angelo wants to buy lunch for $5.75 and buy a poster and souvenir cup. About how much money should he bring to the zoo?

_____

Mixed Review

7. $1.73 + 0.14

8. $10.00 − 8.59

9. 6,285 − 3,119

10. 16,212 + 42,080

11. $19.27 + 11.27

Name _____

LESSON 4.1

Expressions

Vocabulary

Complete the sentence.

1. _____ tell which operation to do first.

2. An _____ is a part of a number sentence that has numbers and operation signs, but no equal sign.

Tell what you would do first.

3. $4 + (8 - 2)$ _____

4. $(16 - 9) + 3$ _____

5. $28 + (5 - 2)$ _____

Find the value of each expression.

6. $5 + (20 - 8)$ _____

7. $25 - (6 + 11)$ _____

8. $5 + (45 - 22)$ _____

9. $55 + (22 - 9)$ _____

10. $(33 - 17) + 14$ _____

11. $(42 - 33) + 54$ _____

12. $(13 + 15 + 9) - 22$ _____

13. $45 - (22 + 6 + 3)$ _____

14. $(3{,}827 - 1{,}294) + 6{,}782$ _____

Mixed Review

15. $\begin{array}{r} 2{,}112 \\ +\ 5{,}899 \\ \hline \end{array}$

16. $\begin{array}{r} 85{,}584 \\ -\ 29{,}920 \\ \hline \end{array}$

17. $\begin{array}{r} 50{,}008 \\ -\ 28{,}251 \\ \hline \end{array}$

18. $\begin{array}{r} 3{,}804 \\ +\ 9{,}156 \\ \hline \end{array}$

19. $\begin{array}{r} 3{,}333 \\ -\ 1{,}797 \\ \hline \end{array}$

20. $\begin{array}{r} 47{,}310 \\ -\ 19{,}894 \\ \hline \end{array}$

21. $\begin{array}{r} 62{,}809 \\ -\ 59{,}345 \\ \hline \end{array}$

22. $\begin{array}{r} 8{,}637 \\ -\ 4{,}737 \\ \hline \end{array}$

Name _____

LESSON 4.2

Use Parentheses

Choose the expression that shows the given value. Write *a* or *b*.

1. 17
a. $(15 - 2) + 4$
b. $15 - (2 + 4)$

_____

2. 10
a. $16 - (8 + 2)$
b. $(16 - 8) + 2$

_____

3. 13
a. $(72 - 18) + 41$
b. $72 - (18 + 41)$

_____

Show where the parentheses should be placed to make the expression equal to the given value.

4. $100 - 8 + 4$; 96

_____

5. $25 - 4 + 8$; 13

_____

6. $150 - 65 + 13$; 72

_____

7. $56 - 24 - 13$; 19

_____

8. $85 - 25 + 13$; 73

_____

9. $150 - 25 + 37$; 88

_____

Find the number that gives the expression a value of 25.

10. $(15 - 7) + \square$

_____

11. $50 - (45 - \square)$

_____

12. $(31 + \square) - 11$

_____

Mixed Review

13. $19 - 8 =$ _____
$11 + 8 =$ _____

14. $6 + 7 =$ _____
$13 - 6 =$ _____

15. $12 - 9 =$ _____
$3 + 9 =$ _____

16. $62 + \square = 89$

_____

17. $14 + \square = 33$

_____

18. $72 - \square = 46$

_____

19. $\square - 11 = 89$

_____

20. $\square + 44 = 74$

_____

21. $\square + 39 = 106$

_____

Name _____

LESSON 4.3

Match Words and Expressions

Choose the expression that matches the words.

1. There were 12 apples in the fruit bowl. Three were eaten and 6 more were added.

   a. $12 - (3 + 6)$

   b. $(12 - 3) + 6$

2. Emily had \$22. She spent \$6 at the mall and then earned \$8 more.

   a. $(\$22 - \$6) + \$8$

   b. $\$22 - (\$6 + \$8)$

3. The library has 86 biographies. 7 are checked out and 4 are discarded.

   a. $86 - (7 + 4)$

   b. $(86 - 7) + 4$

4. Riley had 50¢. She spent 10¢ at the store and played a video game for 25¢.

   a. $(50¢ - 10¢) + 25¢$

   b. $50¢ - (10¢ + 25¢)$

Write an expression for each. Solve.

5. There are 16 people at the Swim Club meeting. 5 people leave and 7 more people come.

   _____

6. Rob had 52 baseball cards. He gave 5 to Larry and 8 to Evan.

   _____

7. Kari had 10 workbook pages for homework. She did 3 after school and 5 after dinner.

   _____

8. Lisa earned \$20 doing yard-work. She got a \$3 tip and spent \$12.

   _____

Mixed Review

9. $\begin{array}{r} 63{,}899 \\ -\ 47{,}641 \\ \hline \end{array}$

10. $\begin{array}{r} 389{,}290 \\ 592{,}921 \\ +\ 491{,}911 \\ \hline \end{array}$

11. $\begin{array}{r} 48{,}001 \\ -\ 5{,}842 \\ \hline \end{array}$

12. $\begin{array}{r} 493{,}722 \\ 891{,}836 \\ +\ 105{,}069 \\ \hline \end{array}$

13. $(27 + 3 + 9) - 15$ _____

14. $91 - (42 + 18 + 5)$ _____

15. $(6{,}963 - 280) + 7{,}118$ _____

Name _____ LESSON 4.4

Use Variables

Vocabulary

Complete the sentence.

1. A _____ is a letter which stands for any number.
2. A number sentence that states that two amounts are equal is an _____.

Write an expression. Choose a variable for the unknown.

3. Thomas had some money in his bank account. He withdrew $10.

_____

4. There were 16 cans on the shelf. Some more cans were placed on the shelf.

_____

5. At the assembly, there are 83 students and some teachers.

_____

6. There are 8 campers in the pool. Some campers come out to have a snack.

_____

Write an equation for each. Choose a variable for the unknown.

7. There are 26 students in Mrs. Philips' class. 15 are boys. The rest are girls.

_____

8. Arturo has 4 posters. He buys some more posters. Now he has 12 posters.

_____

9. Mr. Tran has 45 students in gym class. 32 are playing volleyball. The rest are square dancing.

_____

10. Christine adds 4 coins to her piggy bank. There are now 83 coins.

_____

Mixed Review

Evaluate.

11. $3 + (20 - 12)$ _____ 12. $(5 + 8) - (2 + 7)$ _____ 13. $25 - (4 + 6)$ _____

Name _____

LESSON 4.5

Find a Rule

Find the rule. Write the rule as an equation.

1.

Input	Output
x	*y*
6	12
14	20
9	15
11	17

_____

_____

2.

Input	Output
a	*b*
18	10
9	1
12	4
15	7

_____

_____

3.

Input	Output
r	*k*
45	39
27	21
18	12
21	15

_____

_____

4.

Input	Output
t	*m*
13	25
8	20
17	29
3	15

_____

_____

Use the rule and equation to make an input/output table.

5. Add 8.
$t + 8 = p$

Input	Output

6. Subtract 3.
$w - 3 = t$

Input	Output

7. Add 14.
$c + 14 = m$

Input	Output

8. Subtract 28.
$b - 28 = g$

Input	Output

9. Add 23.
$g + 23 = y$

Input	Output

10. Subtract 32.
$m - 32 = w$

Input	Output

11. Subtract 9.
$x - 9 = b$

Input	Output

12. Add 28.
$t + 28 = r$

Input	Output

Mixed Review

Round to the millions place.

13. 58,405,303 _____

14. 492,920,302 _____

15. 289,810,304 _____

Name _____

LESSON 4.6

Equations

Tell whether the values on both sides of the equation are equal. Write *yes* or *no*. Explain.

1. 1 quarter = 2 dimes

_____

2. 1 dime − 2 pennies = 1 nickel + 3 pennies

_____

3. 3 dimes and 2 nickels = 40 pennies

_____

4. 4 pennies and 1 quarter = 3 dimes

_____

5. 

_____

6. 

_____

Complete to make the equation true.

7. 19 + 3 = _____ + 19

_____

8. 12 + 4 = 6 + _____

_____

9. 2 + 7 + _____ = 10 + 7

_____

10. 15 + 6 = 7 + 7 + _____

_____

11. 22 + 8 + 1 = 25 + _____

_____

12. _____ + 5 = 10 + 3 + 1

_____

Mixed Review

Evaluate.

13. (9 + 11) − (4 + 4) = ___

14. 72 − (41 + 6) = ___

15. 35 + (16 − 3) = ___

16. (49¢ − 22¢) + 17¢ = ___

17. (15 + 11) − 6 = ___

18. (11 − 6) + 15 = ___

19. (43 − 8) + (7 − 5) = ___

20. (90 − 21) + 17 = ___

21. 86 + (33 − 15) = ___

Name _____

LESSON 4.7

Problem Solving Strategy

Make a Model

Make a model and solve.

There is a contest between the different grades at Memorial Elementary school. The contest lasts for two weeks. The first grade to collect 20 bags of recyclables wins a pizza party.

1. Students from Grade 2 brought in 4 bags then brought in 7 more bags. How many more bags do they need to win?

_____

2. At the end of the contest, Grade 5 had collected 16 bags. If they collected 5 bags in Week 2, how many did they collect in Week 1?

_____

3. Grades 1 and 3 have decided to work together. If Grade 1 brought in 12 bags and Grade 3 brought in 16 bags, how many do they have altogether?

_____

4. If Grade 6 collects 9 bags of cans in week 1 and 8 bags in week 2, how many more do they have than Grade 2?

_____

5. At the end of the contest, Grade 4 had collected 5 more bags than Grades 1 and 3 combined. How many bags of recyclables did Grade 4 collect?

_____

6. How many more bags should Grade 2 collect so that they have the same number as Grades 1 and 3 combined?

_____

Mixed Review

Use the rule and equation to make an input/output table.

7. Add 6.
$x + 6 = z$

Input	Output

8. Subtract 31.
$m - 31 = r$

Input	Output

9. Add 19.
$p + 19 = s$

Input	Output

10. Subtract 25.
$c - 25 = a$

Input	Output

Name _____

LESSON 5.1

Collect and Organize Data

Vocabulary

Complete the sentence.

1. The numbers in the _____ column show the sum as each new line of data is entered.

For 2–3, use the frequency table.

FROZEN POPS SOLD		
Day	**Number of Frozen Pops**	**Cumulative Frequency**
Monday	15	15
Tuesday	24	39
Wednesday	19	58
Thursday	9	67
Friday	21	88

2. The cumulative frequency for Wednesday is _____. This is the sum of the numbers in the frequency column for which days?

_____, _____, and _____.

3. How many frozen pops in all were sold on Monday and Tuesday?

_____

Mixed Review

Order the numbers from greatest to least.

4. 234,358; 23,208; 23,098

_____

5. 12,214; 342,351; 120,142

_____

6. 342,253; 34,235; 34,270

_____

7. 824,723; 8,247; 82,492

_____

Name _____ LESSON 5.2

Find Median and Mode

Vocabulary

Complete the sentence.

1. In a group of numbers ordered from the least to the greatest, the number in the middle is called the _____, and the number that occurs most often is called the _____.

For 2–5, use the table.

SWIM TEAM	
Ages	Number of Students
8	2
9	5
10	4
11	4

2. List all of the ages of all the swim team members, from least to greatest.

_____

_____

3. Use your list from problem 1. What is the median age of the swim team members?

_____

4. What is the mode of the ages of the swim team members?

_____

5. What if there was a new swimmer added to the table. Her age is 10. Would that change the mode? Explain.

_____

_____

Mixed Review

Round each number to the nearest 100.

6. 56,298 _____ 7. 355,207 _____ 8. 514,899 _____

9. 29,909 _____ 10. 17,923 _____ 11. 99,903 _____

Find *n*.

12. $4 \times n = 9 + 3$ _____ 13. $n \times 5 = 20 + 5$ _____

14. $8 + n = 10 + 6$ _____ 15. $5 \times n = 2 \times 10$ _____

16. $6 + 5 = 9 + n$ _____ 17. $8 \times 2 = n + 9$ _____

18. $4 \times n = 11 + 1$ _____ 19. $n + 7 = 19 + 12$ _____

Name _____

LESSON 5.3

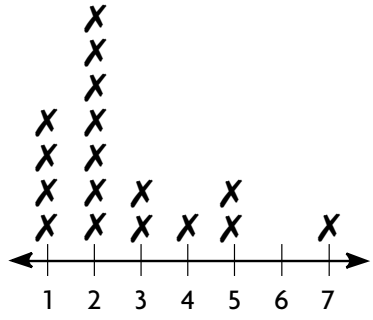
Line Plot

Vocabulary

Complete the sentences.

1. A _____ is a graph that shows data along a number line.
2. The difference between the greatest and the least numbers in a set of data is called the _____.

For 3–4, use the line plot at right.



Number of Children in Family

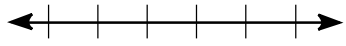
3. The X's on this line plot represent the number of students. What do the numbers on the line plot represent?

_____

4. What number of children do more students have in their families?

_____

Slices of Pizza Eaten at a Party						
Number of Slices	0	1	2	3	4	5
Number of Students	//	𝍸 /	𝍸	///	/	//


Slices of Pizza Eaten at a Party

5. Use the data in the table to complete the line plot.

Mixed Review

Write each number in standard form.

6. 100,000 + 50,000 + 4,000

_____

7. ninety-six thousand

_____

8. Nine hundred seventy thousand eight hundred fifty-two

_____

9. 400,000 + 80 + 8

_____

Name _____ LESSON 5.4

Stem-and-Leaf Plot

Vocabulary

Complete the sentences.

1. A _____ shows groups of data organized by place value.
2. Each tens digit is called a _____.
3. The ones digits are called the _____.

The stem-and-leaf plot below shows the scores that fourth-grade students made in a spelling contest. For 4–6, use the stem-and-leaf plot.

4. What are the least and the greatest scores?

_____

5. What is the mode of the contest scores?

_____

6. What is the median of the contest scores?

_____

Spelling Scores

Stem	Leaves
6	8 8 9 9
7	2 3 5 5 6
8	4 4 6 7 8 8 8
9	1 2 2 3 4 5 5

6|8 means a score of 68

Mixed Review

Find *n*.

7. $5 \times 6 = n$ _____
8. $9 \times 4 = n$ _____
9. $6 \times 9 = n$ _____
10. $n - 3 = 4$ _____
11. $7 + 12 = n$ _____
12. $63 \div n = 9$ _____
13. $10 + n = 13$ _____
14. $7 \times n = 56$ _____
15. $8 \times n = 64$ _____

16. Round 39,457 to the nearest 10,000.

_____

17. Ted bought eggs for $1.98, milk for $2.19, and bread for $1.10. What change should he receive from $10.00? _____

Name _____

Compare Graphs

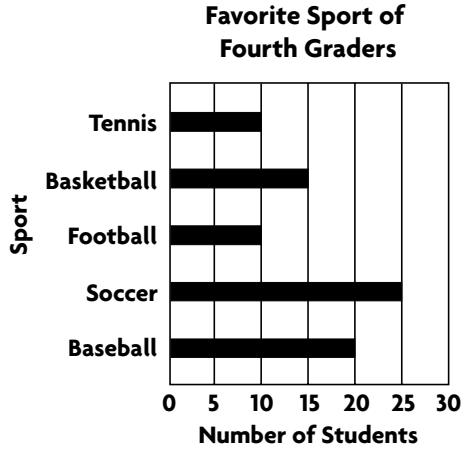
Vocabulary

Complete the sentence.

1. The _____ is the series of numbers placed at fixed distances on the side of a graph.

2. The _____ of a scale is the difference between any two numbers.

For 3–6, use the graph.



3. What is the interval of the scale in the graph?

_____

4. How would the bars change in the graph if the interval were 1?

_____

5. Describe how the bars in the graph would look if you made a new graph, using a scale interval of 10.

_____

6. Suppose the scale of a bar graph is 0, 4, 8, 12, 16, 20. Describe the bar length that would represent the number 10.

_____

_____

Mixed Review

7. $55 + 23$ _____ 8. $44 - 23$ _____ 9. $12 + 34$ _____ 10. $87 + 12$ _____

11. 5×6 _____ 12. $72 \div 9$ _____ 13. 12×12 _____ 14. $45 \div 5$ _____

15. A baker can make 8 batches of cookies an hour. How many batches of cookies can the baker made in 7 hours?

_____

16. Kim has a scarf. It has a red stripe, a blue stripe, and a white stripe. This pattern repeats. What color is the eighth stripe?

_____

Name _____ LESSON 5.6

Problem Solving Strategy

Make a Graph

Vocabulary

Complete the sentences.

1. We can use a _____ to help see information more easily.
2. Two types of graphs or plots are: _____

_____

For 3–5, use the following data.

Students recorded how many servings of fruit they ate in one day. The answers were: 1, 1, 1, 2, 2, 2, 2, 3, 3, 4, 4, 4, 4, 5.

3. Make a table to show the data.

FRUIT EATEN BY STUDENTS	
Number of Servings	Number of Students
1	3
2	4
3	2
4	4
5	1

4. Make a bar graph to show the data.

5. Make a line plot to show the data.

Mixed Review

6. Find the mode of these numbers: 14, 14, 15, 16, 18, 18, 18, 20, 22. _____

7. $12.75 + $13.22 _____

8. 34×3 _____

Name _____

Double-Bar Graphs

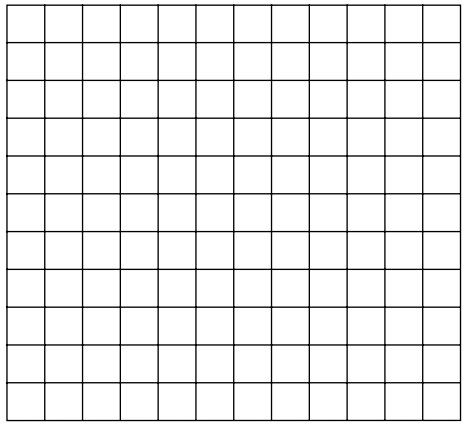
Vocabulary

Complete the sentence.

1. A _____ is used to compare similar kinds of data.

Bulbs (per package of 25)		
Bulbs	**Kevin's Flowers**	**Hillside Nursery**
Daffodil	$18.00	$14.00
Tulip	$10.00	$12.00
Hyacinth	$21.00	$12.00
Crocus	$5.00	$7.00

2. Make a double-bar graph to compare the cost of bulbs at Kevin's Flowers and at Hillside Nursery. Use the data from the table above. Choose an appropriate scale. Include a title, labels, a scale, and a key for both stores.



Mixed Review

3. Which is greater, 420,391 or 402,931?

_____

4. Round 225,770 to the nearest thousand.

_____

5. Estimate 893,232 + 281,932

_____

6. What is the sum of 259,739 and 927,492?

_____

Name _____

LESSON 6.2

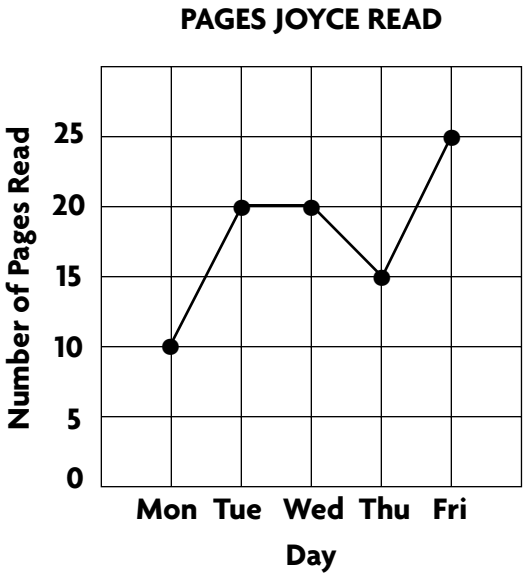
Read Line Graphs

Vocabulary

Complete the sentence.

1. A _____ uses a line to show how something changes over a period of time.

Joyce made this line graph to show the number of pages she read each day in a mystery book. For 2–5, use the graph.



2. On what day did Joyce read the most pages? the fewest pages?

_____

3. How many pages did Joyce read on Thursday?

_____

4. On which two days did Joyce read the same number of pages?

_____

5. How many more pages did Joyce read on Friday than on Monday

_____

6. How many pages did Joyce read all together from Monday through Friday?

_____

Mixed Review

7. 35,859 + 91,847	8. 680,005 − 490,948	9. 5,940,394 − 2,518,624	10. 9,848,664 + 8,842,231
11. 762,063 − 410,978	12. 248,671 + 99,348	13. 7,100,003 − 6,471,691	14. 8,317,062 + 4,065,594

Name _____

Make Line Graphs

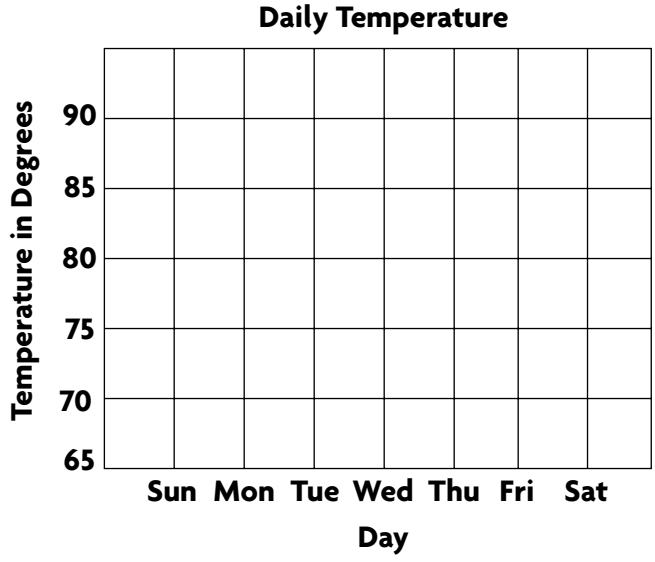
For 1–2, make a line graph.

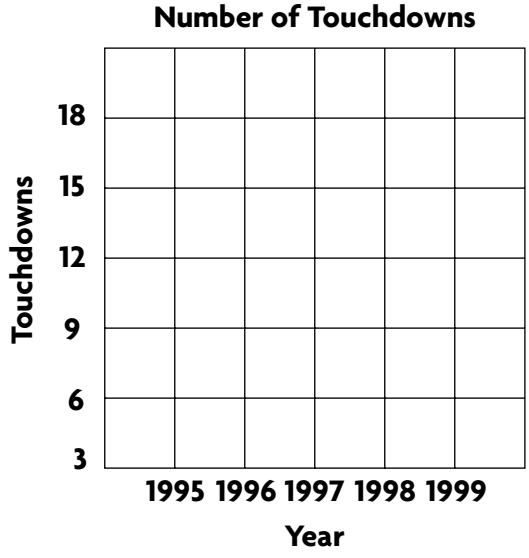
1.

Daily Temperature							
Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Temperature in Degrees	65	70	85	75	70	80	80

2.

Number of Touchdowns					
Year	1995	1996	1997	1998	1999
Touchdowns	10	12	9	15	18





3. Which day had the highest temperature? What was the temperature on that day?

_____

4. Describe any trends in the number of touchdowns scored.

_____

_____

Mixed Review

5. Compare. Use <, > or =.
7,458 ◯ (8,125 − 304)

6. Find 100,000 more than 1,825,435.

_____

Name _____

LESSON 6.4

Choose an Appropriate Graph

For 1–4, write the kind of graph or plot you would choose.

1. to show a record of a baby's weight for six months

_____

2. to show how many bicycles were sold each month at a store

_____

3. to find the median age of the teachers at a school

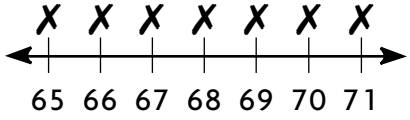
_____

4. to compare the favorite sports of boys and girls in your class

_____

Explain why each graph or plot is not the best choice for the data it shows. Tell which type of graph or plot would be a better choice.

5. **DAILY HIGH TEMPERATURES FOR SEPT. 15–21**



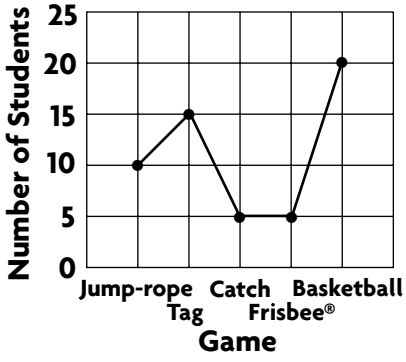
_____

_____

_____

_____

6. **FAVORITE GAMES AT RECESS**



_____

_____

_____

_____

_____

_____

Mixed Review

Complete to make the equation true.

7. $15 + 4 = \_\_\_\_ + 10$ _____

8. $\_\_\_\_ + 8 = 13 + 4$ _____

9. $11 + \_\_\_\_ = 20 + 15$ _____

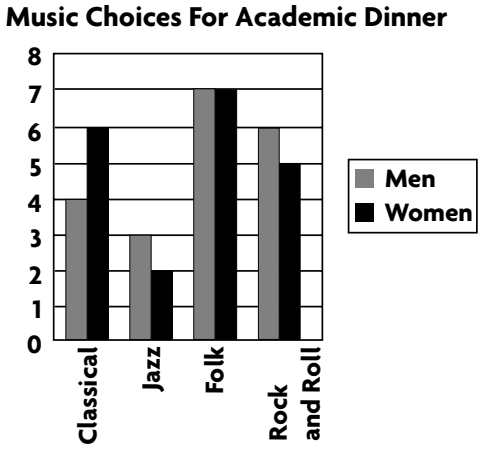
Name _____

Problem Solving Skill

Draw Conclusions

For 1–7, use the graph.

The parents of Mrs. Watkins' fourth grade students wanted to compare their favorite music choices for the Academic Dinner. Mr. Kennedy took a survey and made a double-bar graph.



1. What is the favorite music choice for men?

_____

2. What is the favorite music choice for women?

_____

3. How many men prefer to have rock and roll at the banquet?

_____

4. How many of the women prefer classical music?

_____

5. Which type of music is preferred equally by the men and women?

_____

6. How many men were surveyed altogether? women?

_____

7. Is it reasonable to conclude that the parents chose folk music for the Academic Dinner? Explain.

_____

_____

Mixed Review

8. Find 100,000 more than 3,489,234.

_____

9. Round 355,790 to the nearest thousand.

_____

10. Estimate 390,645 + 71,960

_____

11. Estimate 495,931 + 889,853

_____

Name _____

LESSON 7.1

Before and After the Hour

Write the time as shown on a digital clock.

1. 7 minutes after 3 _____

2. 28 minutes before 11 _____

3. 15 minutes after 5 _____

4. 18 minutes after 2 _____

5. 3 minutes after 12 _____

6. 15 minutes before 7 _____

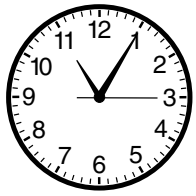
Write the time shown on the clock in 2 different ways.

7. 

_____

_____

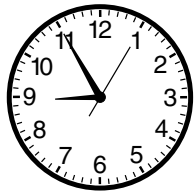
_____

8. 

_____

_____

_____

9. 

_____

_____

_____

Write the letter of the unit used to measure the time. Use each answer only once.

10. to take a shower _____

11. to drive across the United States _____

12. to button a button _____

13. to get a night's sleep _____

a. days

b. hours

c. minutes

d. seconds

Mixed Review

14. Evaluate $59 - (32 + 12)$ _____

15. Evaluate $(28 - 9) - (4 + 8)$ _____

16. Order from least to greatest: 37,623; 37,326; 36,723

_____

17. Estimate the difference between 47,791 and 35,167.

_____

Name _____

LESSON 7.2

A.M. and P.M.

Vocabulary

Complete.

1. _____ means "before noon."

2. _____ means "after noon."

Write the time, using A.M. or P.M.

3. when the sun rises

_____

4. when you eat dinner

_____

5. when school starts

_____

6. when the gas station closes

_____

7. when you eat breakfast

_____

8. when the mall opens

_____

Write A.M. or P.M.

9. Marty has a doctor's appointment at 11:15 _____

10. Ron is going shopping from 3 _____ to 5 _____.

11. Marci is baby-sitting at 9:30 Saturday morning. _____

12. Juan's shift begins at 4:45 in the afternoon. _____.

Mixed Review

Evaluate 13–14.

13. $45 + (16 - 8)$ _____

14. $73 - (36 + 23)$ _____

15. Manuela has 2 one dollar bills, 5 quarters, 8 dimes, a nickel and 3 pennies. How much money does she have?

_____

16. Write five million, six hundred thirty thousand, eight hundred ninety-two in standard form.

_____

Name _____

LESSON 7.3

Elapsed Time

Vocabulary

Complete the sentence.

1. _____ is the time that passes from the start of an activity to the end of that activity.

Find the elapsed time.

2. **start:** 7:30 A.M.
   end: 3:30 P.M.

   _____

3. **start:** 8:05 A.M.
   end: 9:55 A.M.

   _____

4. **start:** 9:12 P.M.
   end: 11:28 P.M.

   _____

Complete the table.

	Start Time	End Time	Elapsed Time
5.	7:20 A.M.		1 hr 30 min
6.	10:12 A.M.	4:15 P.M.	

For 7–8, use the tour schedule.

7. At about what time does each tour end?

   _____

8. The Gutierrez family is seeing a Broadway show at 5:30 P.M. Which tour(s) can they take?

   _____

TOURS OF NEW YORK CITY	
Tours last about 4 hours and 15 minutes	
Bus	**Departure Time**
Red Coach	9:45 A.M.
Blue Coach	11:25 A.M.
Green Coach	1:40 P.M.
Yellow Coach	3:05 P.M.

Mixed Review

Add or Subtract.

9. 455,967 + 396,128

10. 320,051 − 198,489

11. 4,938,920 − 9,938,593

Name _____

Problem Solving Skill

Sequence Information

Mr. Anderson is taking his history class to the local history museum, where the students want to take a tour, view two movies, have lunch, and visit the costume room. The bus will drop the class off at 9:15 A.M. and lunch will be at 12:15 P.M. Tours of the museum start about every 5 minutes and can be for either 40 minutes or for 1 hour and 15 minutes.

Revolutionary Heroes	
running time: 45 min	
9:00	1:00
10:00	2:00
11:00	3:00

Battlegrounds	
running time: 37 min	
9:30	1:30
10:30	2:30
11:30	5:00

1. Is there a way for the class to see both movies before lunch? If so, name a schedule.

_____

_____

_____

_____

2. If the class begins the longer museum tour at 9:40, will it be able to see Revolutionary Heroes and still be ready for lunch at 12:15? Explain.

_____

_____

_____

3. If the class visits the costume room at 1:45 and stays for one hour and 10 minutes, can it view *Revolutionary Heroes* and be ready to meet the bus at 3:30 P.M.?

_____

_____

_____

4. Make a schedule for the class which includes both movies, a tour of the museum, and a visit to the costume room.

_____

Mixed Review

5. 370,716 − 192,408

6. 971,858 − 863,245

7. 4,330,629 + 6,197,550

8. 3,606,117 − 3,432,980

Name _____

LESSON 7.5

Elapsed Time on a Calendar

For 1–3, use the calendars.

Camp Windy	
Session 1:	Jul 13–Jul 17
Session 2:	Jul 27–Jul 31
Session 3:	Aug 3–Aug 14

June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

1. The camp director bought art supplies 4 weeks before the beginning of the first session of camp. On what date did she buy art supplies?

_____

2. In Session 3, the campers put on a puppet show on the second Wednesday of the session. What was the date of the puppet show?

_____

3. Jim plans to attend Session 2 of camp. His last day of school is June 19. About how many weeks of summer vacation will Jim have before camp begins?

_____

Mixed Review

Evaluate.

4. $125 - (65 + 22)$ _____

5. $234 - (24 - 13)$ _____

6. $4{,}590 - (1{,}293 - 389)$ _____

Round to the nearest ten thousand.

7. 472,099 _____

8. 939,658 _____

9. 3,514,811 _____

Name _____

LESSON 8.1

Relate Multiplication and Division

Find the value of the variable. Write a related equation.

1. $21 \div 3 = t$

2. $5 \times 5 = c$

3. $16 \div 2 = a$

4. $18 \div 6 = d$

5. $54 \div 9 = k$

6. $4 \times 4 = b$

7. $6 \times 2 = f$

8. $35 \div 7 = h$

9. $8 \div n = 2$

10. $4 \times p = 24$

11. $30 \div z = 6$

12. $6 \times j = 48$

13. $l \div 7 = 8$

14. $y \div 1 = 6$

15. $k \times 6 = 42$

16. $n \times 7 = 63$

Write the fact family for each set of numbers.

17. 3, 4,12

18. 4, 7, 28

19. 5,10, 50

20. 8, 9, 72

Mixed Review

21.
$11.21
$12.15
+ $1.61

22.
1,242,316
− 164,320

23.
6,548,957
3,847,200
+ 9,874,512

24.
$15.27
$7.99
+ $3.25

25.
8
×8

26.
9
×4

27.
6
×7

28.
3
×5

29.
7
×8

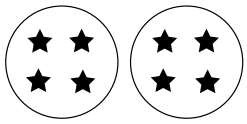
Name _____

LESSON 8.2

Multiply and Divide Facts Through 5

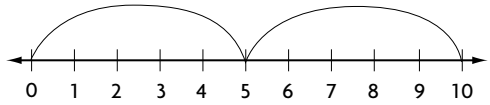
Find a related multiplication or division equation.

1. $2 \times 4 = 8$



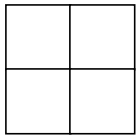
_____

2. $2 \times 5 = 10$



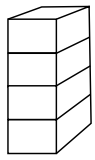
_____

3. $2 \times 2 = 4$



_____

4. $4 \times 1 = 4$



_____

Find the product or quotient.

5. 6×2 _____

6. $21 \div 7$ _____

7. 9×5 _____

8. $28 \div 4$ _____

9. 8×3 _____

10. $24 \div 6$ _____

11. $18 \div 2$ _____

12. 5×8 _____

Find the value of the variable.

13. $7 \times 2 = 14$, so $(7 \times 2) + 10 = r$

_____

14. $(36 \div 4) = 9$, so $(36 \div 4) \times 5 = m$

_____

Write $<$, $>$ or $=$ for each ◯.

15. $27 \div 3 \bigcirc 2 \times 4$

_____

16. $32 \div 4 \bigcirc 3 \times 3$

_____

Mixed Review

17. Evaluate. $(22 - 6) + 38$

_____

18. In the number 1,257,873 what digit is in the ten-thousands place?

_____

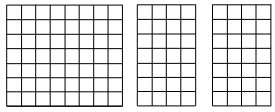
Name _____

LESSON 8.3

Multiply and Divide Facts Through 10

Show how the arrays can be used to find the product.

1. What is 7×8?

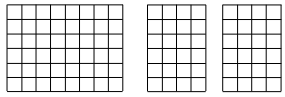


$7 \times 4 =$ _____

$7 \times 4 =$ _____

So, $7 \times 8 =$ _____

2. What is 6×8?



$6 \times 4 =$ _____

$6 \times 4 =$ _____

So, $6 \times 8 =$ _____

Find the product or quotient. Show the strategy you used.

3. 6×6 _____

4. $56 \div 7$ _____

5. 8×5 _____

6. $36 \div 4$ _____

7. 10×6 _____

8. $72 \div 8$ _____

9. 9×7 _____

10. $56 \div 8$ _____

11. 8×6 _____

12. $42 \div 6$ _____

13. $90 \div 9$ _____

14. 9×9 _____

15. 7×6 _____

16. 8×9 _____

17. $49 \div 7$ _____

18. $54 \div 9$ _____

Mixed Review

19. In the number 125,588,325 what digit is in the ten millions place?

_____

20. Find the elapsed time:
Start: 7:54 A.M. End: 9:12 P.M.

_____

21. Round 362,847,321 to the nearest million.

_____

22. Round 13.567 to the nearest hundredth

_____

23. Write an expression using the variable n. There were 9 pears in the bowl. Jenny took some out.

_____

24. Write an equation using the variable p. Robin had some pens. She gave Ben 6 and now has 12.

_____

Name _____

LESSON 8.4

Multiplication Table Through 12

×	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	54	54	54
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

Use the multiplication table to find the product or quotient.

1. $40 \div 4$ _____

2. 5×10 _____

3. $70 \div 10$ _____

4. $110 \div 10$ _____

5. $11 \div 1$ _____

6. 10×8 _____

7. 12×12 _____

8. $66 \div 11$ _____

9. 7×12 _____

10. $108 \div 9$ _____

11. 11×5 _____

12. $36 \div 3$ _____

Find the value of the variable.

13. $30 \div 10 = t$ _____

14. $121 \div y = 11$ _____

15. $80 \div 8 = h$ _____

16. $n \times 12 = 48$ _____

17. $k \times 11 = 132$ _____

18. $10 \times p = 100$ _____

19. $72 \div z = 6$ _____

20. $11 \times j = 99$ _____

Mixed Review

21. $63 + $48 + $122

_____

22. Write one thousand eighty five in standard form.

_____

23. In 7,894,132, what digit is in the ten thousands place?

_____

24. Round to the tens place. 639.47

_____

25. Find the median
15, 18, 22, 11, 20, 20, 13

_____

26. Find the mode.
15, 18, 22, 11, 20, 20, 13

_____

27. $(14 - 8) + 17 =$ _____

27. $36 - (3 + 9) =$ _____

29. $(15 + 15) - (12 + 2) =$ _____

29. $(17 - 6) + (42 - 17) =$ _____

Name _____

LESSON 8.5

Multiply 3 Factors

Find each product.

1. $3 \times (2 \times 4)$ _____

2. $10 \times (2 \times 6)$ _____

3. $(6 \times 5) \times 0$ _____

4. $8 \times (2 \times 6)$ _____

5. $8 \times (1 \times 7)$ _____

6. $6 \times (3 \times 2)$ _____

7. $(2 \times 6) \times 2$ _____

8. $(4 \times 3) \times 9$ _____

9. $(3 \times 4) \times 9$ _____

10. $(3 \times 4) \times 4$ _____

11. $(3 \times 3) \times 3$ _____

12. $10 \times (5 \times 2)$ _____

Show two ways to group by using parentheses. Find each product.

13. $11 \times 1 \times 5$ _____

14. $4 \times 2 \times 6$ _____

15. $2 \times 6 \times 1$ _____

16. $2 \times 4 \times 3$ _____

Write $<$, $>$ or $=$ for each ◯.

17. $(1 \times 9) \times 6$ ◯ $3 \times (6 \times 2)$

18. $(6 \times 2) \times 3$ ◯ $4 \times (3 \times 3)$

19. $3 \times 4 \times 3$ ◯ $9 \times 2 \times 2$

20. $(6 \times 2) \times 6$ ◯ $11 \times (4 \times 3)$

Mixed Review

21. In the number 25,327, what digit is in the thousands place? _____

22. Round the number 8,569 to the hundreds place. _____

23. $(\$7{,}321 - \$1{,}435) + \$2{,}600$ _____

24. $(4{,}828 + 179) - 3{,}990$ _____

Name _____

LESSON 8.6

Problem Solving Skill

Choose the Operation

Solve. Name the operation or operations you used.

1. Kate sold 21 boxes of cookies. Randy sold 32 boxes of cookies. Gina sold 49 boxes of cookies. How many boxes did they sell?

_____

2. Behind home plate there are 5 rows of seats. Each row has 7 seats in it. How many seats are in this section?

_____

3. In the pottery classroom there were 3 tables. There were 6 people at each table. Each person made 2 clay animals. How many clay animals were made?

_____

4. The fine for an overdue book at the Cotter Library is 5¢ a day. Tyler returned his books 1 day late. He paid a 30¢ fine. How many books did he return?

_____

5. Ashley, Suzanne and Liz bought a box of chocolates. There are 36 chocolates in the box. How many do they get each?

_____

6. Clyde sleeps 8 hours each night. How many hours does he sleep each week?

_____

7. On Tuesday morning, Mrs. Corbett drove 57 miles to Princeton. Then she drove to Natick. She drove a total of 90 miles. How many miles was it from Princeton to Natick?

_____

8. Peter took a three-day 28-mile backpacking trip. He hiked 9 miles the first day and 11 miles the second day. How many miles did he hike the third day?

_____

Mixed Review

9. Find the median.
546, 550, 420, 410, 560, 530, 530

_____

10. Find the mode.
546, 550,420,410,560,530,530

_____

11. In the number 12,482 what digit is in the tens place?

_____

12. How much time is there between 9:27 A.M. and 6:32 P.M.?

_____

Name _____

LESSON 9.1

Expressions with Parentheses

Find the value of the expression.

1. $(49 - 22) \div 3$ _____

2. $88 - (12 \times 4)$ _____

3. $14 + (6 \times 9)$ _____

4. $123 - (45 \div 5)$ _____

5. $(42 \div 7) \times 8$ _____

6. $3 \times (4 + 8)$ _____

7. $(55 - 35) \div 5$ _____

8. $55 - (35 \div 5)$ _____

9. $34 + (27 \div 9)$ _____

10. $36 \div (4 + 5)$ _____

11. $155 - (81 \div 9)$ _____

12. $7 \times (25 \div 5)$ _____

Choose the expression that shows the given value.

13. 55

a. $(9 \times 6) + 1$

b. $9 \times (6 + 1)$

14. 70

a. $7 \times (3 + 7)$

b. $(7 \times 3) + 7$

15. 8

a. $(2 \times 8) \div 2$

b. $2 \times (8 \div 2)$

Find the value of each expression.

16. $(243 - 124) - (4 \times 5)$ _____

17. $(15 \div 3) \times (22 - 14)$ _____

18. $(14 \div 2) \times (44 - 33)$ _____

19. $(7 \times 4) + (18 \div 2)$ _____

Mixed Review

Solve.

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

21. $\begin{array}{r} 5 \\ \times 12 \\ \hline \end{array}$

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

23. $\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$

24. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$

25. $\begin{array}{r} 12 \\ \times 7 \\ \hline \end{array}$

26. $\begin{array}{r} 4 \\ \times 11 \\ \hline \end{array}$

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

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

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

Name _____

LESSON 9.2

Match Words and Expressions

Choose the expression that matches the words.

1. Ali had \$9 and then worked 3 hours for \$6 per hour.

   a. $(9 + 3) \times 6$

   b. $9 + (3 \times 6)$

2. Jane had 57¢. She lost 2 dimes.

   a. $(57 - 2) \times 10$

   b. $57 - (2 \times 10)$

3. Larry had 12 books. Eleven of the books had 10 pages each. The twelfth book had 15 pages.

   a. $(10 \times 11) + 15$

   b. $10 \times (11 + 15)$

4. Rashid had 16 pens. Nine were broken, then Rashid doubled those that were left.

   a. $(16 - 9) \times 2$

   b. $16 - (9 \times 2)$

5. Jeff bought 5 models which each cost \$ 7. He paid \$2 in sales tax.

   a. $(5 \times 2) + 7$

   b. $(5 \times 7) + 2$

6. Mr. Gibson's band room has 8 rows of 6 chairs each. There are also 3 chairs not in rows.

   a. $(8 \times 6) + 3$

   b. $(3 \times 6) + 8$

7. Eloise planted 6 rows of chrysanthemums with 5 plants in each row. She put 3 more plants in another row.

   a. $(6 \times 5) + 3$

   b. $6 \times (5 + 3)$

8. Joel built 3 birdhouses each day for a week and then the dog knocked over and broke 2 of the birdhouses.

   a. $(3 \times 2) - 7$

   b. $(3 \times 7) - 2$

Mixed Review

Evaluate.

9. $(5 + 6) - (3 + 4)$ _____

10. $15 - (27 - 14)$ _____

11. $(2 \times 6) \div 4$ _____

12. $4 \times 3 \times 7$ _____

13. $6 \times 6 \times 2$ _____

14. $4 \times 9 \times 1$ _____

15. $\begin{array}{r} 9{,}002 \\ -\,8{,}008 \\ \hline \end{array}$

16. $\begin{array}{r} 7{,}958 \\ -\,1{,}798 \\ \hline \end{array}$

17. $\begin{array}{r} 4{,}621 \\ +\,3{,}299 \\ \hline \end{array}$

Name _____

LESSON 9.3

Multiply Equals by Equals

Multiply both sides by the given number. Find the new value.

1. 4 pennies = 4 pennies; multiply both sides by 7.

_____

2. 2 dimes = 2 dimes; multiply both sides by 3.

_____

3. 1 nickel = 5 pennies; multiply both sides by 7.

_____

4. 3 nickels = 1 dime 1 nickel; multiply both sides by 3.

_____

5. $(4 + 2) = (3 \times 2)$; multiply both sides by 7.

_____

6. $(6 + 3) = (3 \times 3)$; multiply both sides by 8.

_____

7. $12 = 6 \times 2$; multiply both sides by 6.

_____

8. $(3 + 5) = (64 \div 8)$; multiply both sides by 5.

_____

9. $10 = 5 \times 2$; multiply both sides by 9.

_____

10. $(6 + 5) = (11 \times 1)$; multiply both sides by 10.

_____

11. $(2 + 3) = (15 \div 3)$; multiply both sides by 6.

_____

12. 1 dime 2 pennies = 12 pennies; multiply both sides by 3.

_____

Mixed Review

Name the place value of the bold digit.

13. 1,**6**72,439 _____

14. 1,672,**4**39 _____

15. 1,6**7**2,439 _____

16. **1**,672,439 _____

Solve.

17. $\$719.20 + 48.44$

18. $2{,}209 - 1{,}072$

19. $4{,}476 + 4{,}467$

20. $\$32.99 - 12.81$

Name _____

LESSON 9.4

Expressions with Variables

Find the value of the expression.

1. $6 \times z$ if $z = 8$ _____

2. $5 \times s$ if $s = 4$ _____

3. $8 \times t$ if $t = 9$ _____

4. $7 \times u$ if $u = 4$ _____

5. $8 \div y$ if $y = 2$ _____

6. $21 \div a$ if $a = 3$ _____

7. $54 \div x$ if $x = 9$ _____

8. $120 \div b$ if $b = 10$ _____

Choose the expression that matches the words.

9. 3 times the number of people in a room, p

a. $p - 3$ **b.** $3 \times p$

10. \$12 divided by a number of people, p

a. $p \div \$12$ **b.** $\$12 \div p$

11. 8 times the number of shelves in the library, s

a. $s \times 8$ **b.** $s + 8$

12. 15 sweaters divided by a number of children, c

a. $15 - c$ **b.** $15 \div c$

Write an expression that matches the words.

13. 24 players divided by a number of teams, t

_____

14. 12 times the number of pages in a book, p

_____

15. a number of cartons, c, times 8 packets

_____

16. a number of marbles, m, divided by 5 bags

_____

Mixed Review

Solve.

17.
$$\begin{array}{r} 5{,}203 \\ -3{,}999 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 1{,}364 \\ -5{,}202 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 8{,}714 \\ -7{,}961 \\ \hline \end{array}$$

20. Find the median and the mode of the following set of numbers: 5, 4, 7, 6, 3, 6, 8, 5, 6

_____

21. Write an expression. Ellen painted 5 pictures. She threw 1 out and painted 3 more.

_____

Name _____

LESSON 9.5

Equations with Variables

Choose the equation that matches the words.

1. The number of dollars, d, divided evenly by 6 people is 4.

a. $d \div 4 = 6$ **b.** $d \div 6 = 4$

c. $6 \div 4 = d$ **d.** $4 \div 6 = d$

2. The number of plants, p, on 8 shelves is 32.

a. $p \div 8 = 32$ **b.** $8 \div p = 32$

c. $p \times 8 = 32$ **d.** $32 \times p = 8$

Write an equation for each. Choose a variable for the unknown. Tell what the variable represents.

3. 6 bicycles in each of 6 rows is the total number of bicycles.

_____

_____

4. Some number of plants in each of 7 rows is 84 plants.

_____

_____

5. 12 ounces of water in each of a number of bottles is 60 ounces of water.

_____

_____

6. 72 marbles divided evenly among 8 bags is some number of marbles in each bag.

_____

_____

7. A number of pencils divided equally among 5 boxes is 9 pencils in each box.

_____

_____

8. 25 books divided evenly among some number of students is 5 books per student.

_____

_____

Mixed Review

Solve.

9. Round 1,793,445 to the nearest million.

_____

10. Round 1,428,739 to the nearest hundred thousand.

_____

11. $12 \times 9 = n$

_____

12. $144 \div 12 = n$

_____

13. $90 \div h = 9$

_____

Name _____

LESSON 9.6

Find a Rule

Find the rule. Write the rule as an equation.

1.

Input	Output
a	*b*
15	3
20	4
25	5
30	6

_____

_____

2.

Input	Output
c	*d*
4	16
5	20
6	24
7	28

_____

_____

3.

Input	Output
s	*t*
2	16
3	24
4	32
5	40

_____

_____

4.

Input	Output
p	*r*
5	35
6	42
7	49
8	56

_____

_____

Use the rule and the equation to make an input/output table.

5. Multiply by 2.
$a \times 2 = c$

Input	Output

6. Divide by 3.
$r \div 3 = s$

Input	Output

7. Multiply by 11.
$p \times 11 = q$

Input	Output

8. Divide by 4.
$y \div 4 = z$

Input	Output

Mixed Review

Solve.

9. $12 \times 8 = n$

_____

10. $99 \div 11 = n$

_____

11. 5,789 + 2,377

_____

12. Evaluate. $61 - (14 \div 7)$

_____

13. What time is 2 hours and 40 minutes after 11:22 A.M.?

_____

14. Write the standard form for three hundred thousand, five.

_____

Name _____

Problem Solving Strategy

Work Backward

Write an equation and *work backward* to solve.

1. Alexander had some nickels in his bank. He added 3 dimes to the bank and then he had 85¢. How many nickels did Alexander have?

_____

2. Roz is making a quilt. Yesterday she sewed some squares. Today she sewed together rows with 10 squares each. She has sewn a total of 50 squares. How many squares did Roz sew yesterday?

_____

Work backward to solve.

3. Leo folds a sheet of paper in half a certain number of times. When unfolded, if the sheet is divided into 8 sections, how many times did Leo fold the paper in half?

_____

4. Ann is setting a clock. It says 12:00 P.M. She moves the minute hand forward 10 minutes, back 12 minutes, forward 8 minutes, and back some minutes. If the time now reads 12:03 P.M., what was her final move?

_____

5. Holly is going from her home to the grocery store. To get to the store, she walks 3 blocks west and 2 blocks south. When she leaves the store, she walks 3 blocks east. How many blocks and in what direction should Holly walk to get home?

_____

6. Amy and Tim are playing a counting game. They are counting to 30. Amy claps when they say a number that can be divided by 3. Tim claps when they say a number that can be divided by 4. On what numbers do they both clap?

_____

Mixed Review

Solve.

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

8. $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$

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

10. $\begin{array}{r} 12 \\ \times\ 6 \\ \hline \end{array}$

11. $\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$

Name _____

LESSON 10.1

Mental Math: Multiplication Patterns

Use a basic fact and patterns to write each product.

1. **a.** 5×50
   b. 5×500

2. **a.** 9×80
   b. 9×800

3. **a.** $2 \times 3{,}000$
   b. $2 \times 30{,}000$

4. **a.** 9×20
   b. 9×200

5. **a.** $7 \times 9{,}000$
   b. $7 \times 90{,}000$

6. **a.** $4 \times 4{,}000$
   b. $4 \times 40{,}000$

Multiply mentally. Write the basic multiplication fact and the product.

7. 5×700

8. 9×400

9. 9×900

10. 4×500

11. $3 \times 4{,}000$

12. $8 \times 3{,}000$

Find the value of n.

13. $6 \times 40{,}000 = n$

14. $n = 3 \times 600$

15. $n \times 500 = 3{,}500$

16. $3 \times n = 15{,}000$

17. $n \times 8 = 640$

18. $7 \times n = 42{,}000$

19. $7{,}000 \times n = 49{,}000$

20. $6 \times n = 5{,}400$

21. $n \times 6 = 1{,}800$

Mixed Review

22. Write the time in words.

23. Write the time in words.

Name _____

LESSON 10.2

Estimate Products

Round one factor. Estimate the product.

1. $\begin{array}{r} 512 \\ \times\ 5 \\ \hline \end{array}$

2. $\begin{array}{r} 93 \\ \times\ 8 \\ \hline \end{array}$

3. $\begin{array}{r} 1{,}401 \\ \times\ 7 \\ \hline \end{array}$

4. $\begin{array}{r} 257 \\ \times\ 3 \\ \hline \end{array}$

5. $\begin{array}{r} 981 \\ \times\ 7 \\ \hline \end{array}$

6. $\begin{array}{r} 82 \\ \times\ 4 \\ \hline \end{array}$

7. $\begin{array}{r} 127 \\ \times\ 9 \\ \hline \end{array}$

8. $\begin{array}{r} 741 \\ \times\ 9 \\ \hline \end{array}$

9. $\$15.34 \times 7$ _____

10. 903×4 _____

11. 95×9 _____

12. 718×3 _____

13. $1{,}209 \times 8$ _____

14. 657×3 _____

15. 55×2 _____

16. $9{,}099 \times 4$ _____

Choose two factors from the box for each estimated product.

309	4	759
193	3	7

17. ❑ × Δ = 2,100 _____

18. ❑ × Δ = 800 _____

19. ❑ × Δ = 900 _____

20. ❑ × Δ = 2,400 _____

21. ❑ × Δ = 1,200 _____

22. ❑ × Δ = 5,600 _____

Mixed Review

23. Place in order from least to greatest: 1.82; 1.28; 1.028; 1.082

_____

24. Round 194,012 to the nearest ten–thousand.

_____

25. Jeremy calculated the expression $15 - (7 \times 2)$ to be 16. Describe his error.

_____

_____

26. The cost of a pizza is $12.00. If four people are to share the cost equally, how much should each pay?

_____

Name _____

LESSON 10.3

Model Multiplication

Use base-ten blocks to multiply. Record the product.

1. 5×503	**2.** 4×108	**3.** 4×122	**4.** 3×206
_____	_____	_____	_____
5. 3×211	**6.** 4×127	**7.** 2×514	**8.** 3×324
_____	_____	_____	_____

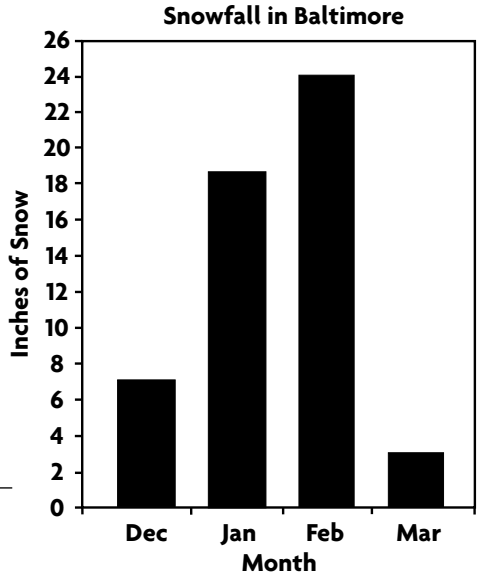
Multiply. You may wish to use base-ten blocks.

9. 4×305	**10.** 2×108	**11.** 3×212	**12.** 4×211
_____	_____	_____	_____
13. 2×131	**14.** 4×217	**15.** 2×415	**16.** 2×253
_____	_____	_____	_____

Mixed Review

17. 12,489 + 1,429	**18.** 1,227 − 828	**19.** 45,123 − 5,124	**20.** 73,711 −25,609

Problems 21–24 use the following graph.



21. What type of graph is shown here?

_____

22. How much snow fell in Baltimore during the months of January and February?

_____

23. What two months had a total of 31 inches of snowfall? _____

24. What was the total snowfall for all four months? _____

Name _____

LESSON 10.4

Multiply 3-Digit Numbers

Multiply. Tell which place-value positions need to be regrouped.

1. 52×5

2. 83×8

3. 401×7

4. 207×3

5. 91×7

6. 862×4

7. 121×9

8. 471×9

Find the product. Estimate to check.

9. 504×6 _____

10. 230×4 _____

11. 59×6 _____

12. 812×3 _____

13. 29×8 _____

14. 57×9 _____

15. 755×4 _____

16. 929×5 _____

17. 291×7 _____

18. 82×6 _____

19. 517×9 _____

20. 771×7 _____

Compare. Write $<$, $>$, or $=$ for each ◯.

21. 127×6 ◯ 308×2

22. 94×5 ◯ 57×9

23. 572×2 ◯ 143×8

Mixed Review

24. What is the elapsed time between 5:12 A.M. and 6:05 P.M.?

_____

25. What is the place-value of the digit 4 in the number 189.0643?

_____

26. Three brothers each have four pairs of shoes. How many shoes are there in total?

_____

27. Write 35,801 in expanded form.

_____

Name _____ LESSON 10.5

Multiply 4-Digit Numbers

1. Explain where to put the decimal point in $\$13.54 \times 9$.

_____

_____

Find the product. Estimate to check.

2. 5,092 × 5 = _____

3. 834 × 5 = _____

4. 4,801 × 3 = _____

5. $\$20.72 \times 3$ = _____

6. $\$42.91 \times 7$ = _____

7. 6,254 × 7 = _____

8. $\$12.18 \times 9$ = _____

9. $\$7.81 \times 9$ = _____

10. $\$46.29 \times 3$ _____

11. 357×6 _____

12. $5{,}555 \times 4$ _____

13. $\$9.24 \times 7$ _____

14. $(\$6.94 \times 3) \times 2$ _____

15. $(4 \times \$12.25) \times 3$ _____

16. $(982 \times 3) \times 7$ _____

Mixed Review

17. If today is Sunday, July 1, what was yesterday?

_____

18. Michele was assigned a project on March 7th. If she was given 3 weeks to complete the project, when is it due?

_____

19. What is the date two weeks before April 23rd?

_____

20. What is the median number of days in the months of September, October, and November? _____

Name _____

Problem Solving Strategy

Write an Equation

For 1–5, write an equation and solve.

1. Theresa's father works 5 days a week for 48 weeks a year. How many days does her father work in a year?

_____

2. Theresa's father makes $24.50 per hour. How much does he make if he works 8 hours?

_____

3. The football team is raising money for new footballs. How much money does the team need to raise if they want 6 new footballs and each one costs $17.93?

_____

4. A civil engineer measured the number of cars that passed through an intersection. If 2,457 cars passed through the intersection in one hour, how many cars would pass through the intersection in 8 hours?

_____

5. Brianna practices playing guitar for 60 minutes a day. How many minutes does she practice in one week?

_____

Each floor of a nine-story office building has 132 windows. How many windows are there in all?

6. What equation can you use to help you answer the question?

A $9 \times n = 132$ **C** $n \times 132 = 9$

B $9 \times 132 = n$ **D** $n \times 9 = 132$

7. What solution answers the question?

F 188 **H** 1088

G 881 **J** 1188

Review Skills

8. $\begin{array}{r} 14 \\ \times\ 5 \\ \hline \end{array}$

9. $\begin{array}{r} 12 \\ \times\ 8 \\ \hline \end{array}$

10. $\begin{array}{r} 26 \\ \times\ 3 \\ \hline \end{array}$

11. $\begin{array}{r} 42 \\ \times\ 2 \\ \hline \end{array}$

12. $\begin{array}{r} 33 \\ \times\ 5 \\ \hline \end{array}$

13. $\$2.98 \times 7$ _____

14. $\$14.81 \times 3$ _____

Name _____

LESSON 11.1

Patterns with Multiples

Use a basic fact and a pattern to find the product.

1. $6 \times 5 =$ _____
   $6 \times 50 =$ _____
   $6 \times 500 =$ _____

2. $2 \times 2 =$ _____
   $2 \times 20 =$ _____
   $2 \times 200 =$ _____

3. $3 \times 6 =$ _____
   $3 \times 60 =$ _____
   $3 \times 600 =$ _____
   $3 \times 6{,}000 =$ _____

4. $9 \times 9 =$ _____
   $9 \times 90 =$ _____
   $9 \times 900 =$ _____
   $9 \times 9{,}000 =$ _____

5. $10 \times 3 =$ _____
   $10 \times 30 =$ _____
   $10 \times 300 =$ _____
   $10 \times 3{,}000 =$ _____

6. $40 \times 3 =$ _____
   $40 \times 30 =$ _____
   $40 \times 300 =$ _____
   $40 \times 3{,}000 =$ _____

7. $600 \times 30 =$ _____

8. $70 \times 3{,}000 =$ _____

9. $1{,}000 \times 30 =$ _____

10. $6{,}000 \times 6{,}000 =$ _____

Find the value of *n*.

11. $n \times 40 = 8{,}000$

_____

12. $900 \times 300 = n$

_____

Mixed Review

Round to the place value of the bold digit.

13. $57{,}4\mathbf{0}3{,}294$

_____

14. $98\mathbf{3}{,}204{,}448$

_____

15. $\mathbf{9}82{,}404$

_____

Solve.

16.
$$\begin{array}{r} 300{,}010 \\ -\ 255{,}492 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 392{,}402 \\ 392{,}402 \\ +\ 492{,}148 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 12{,}498 \\ -\ 10{,}816 \\ \hline \end{array}$$

Name _____

LESSON 11.2

Multiply by Multiples of 10

Find the product.

1. 30×5

2. 60×30

3. 85×30

4. 67×90

5. 30×70

6. 83×5

7. 82×50

8. 95×50

9. 74×20 _____

10. 50×48 _____

11. 60×29 _____

12. 93×40 _____

13. 28×50 _____

14. 72×90 _____

Find the missing digits.

15. $30 \times$ _____$0 = 300$

16. _____$0 \times 20 = 800$

17. $16 \times$ _____$0 = 640$

18. 4_____ $\times 80 = 3{,}600$

19. 1_____ $\times 30 = 540$

20. _____$4 \times 50 = 3{,}200$

21. 8_____ $\times 20 = 1{,}700$

22. 9_____ $\times 60 = 5{,}700$

23. _____$6 \times 80 = 6{,}080$

Mixed Review

Solve.

24. $n \times 4 = 28$ _____

25. $81 \div b = 9$ _____

26. $t \times (3 \times 2) = 18$ _____

27. $y \times 60 = 420$ _____

28. $300 \times w = 36{,}000$ _____

29. $p \times 500 = 6{,}000$ _____

30. 13×4

31. 21×5

32. 17×2

33. 18×5

34. 19×3

35. 25×4

36. 16×8

37. 14×7

Name _____

LESSON 11.3

Estimate Products

Round each factor. Estimate the product.

1. 35 × 11

2. 54 × 32

3. 97 × 93

4. 549 × 65

5. 486 × 74

6. 658 × 209

7. 648 × 174

8. 84 × 151

9. 339 × 359

10. 884 × 444

11. 312 × 45 _____

12. 951 × 84 _____

13. 503 × 49 _____

14. 320 × 40 _____

15. 39 × 503 _____

16. 85 × 81 _____

17. 814 × 242 _____

18. 957 × 84 _____

19. 584 × 394 _____

20. 84 × 315 _____

Use estimation to compare. Write <, >, or = in each ◯.

21. 609 × 33 ◯ 20,000

22. 15,000 ◯ 459 × 35

23. 872 × 254 ◯ 30,000

24. 965 × 198 ◯ 40,000

Mixed Review

Estimate by rounding to the largest place value.

25. 485,492 − 39,492

26. 493,430 + 483,582 + 7,302,598

27. 361 × 42

28. 729 × 58

Multiply.

29. 4,000 × 70

30. 900 × 300

31. 6,000 × 200

32. 3,200 × 20

Name _____

LESSON 11.4

Model Multiplication

Make a model, record and solve.

1. 16×22

2. 24×13

3. 19×12

4. 25×18

5. 15×21

6. 20×16

7. 14×12

8. 25×13

Make a model to find the product. You may use grid paper and markers.

9. 13×18 _____

10. 23×15 _____

11. 62×21 _____

Mixed Review

12. $15 \times 90 = n$ _____

13. $40 \times n = 160{,}000$ _____

14. Order from greatest to least: 87,433; 86,999; 86,302; 87,593; 87,309

_____

_____

15. What day is 12 days after Wednesday, March 15?

_____

Complete the table.

16.

×	4	12	3	6	5	11	8
7							
9							

Name _____ LESSON 11.5

Problem Solving Strategy

Solve a Simpler Problem

Break the problem into simpler parts and solve.

1. $40 \times 28 = (40 \times 20) + (40 \times 8)$

$= \_\_\_\_\_ + \_\_\_\_\_$

$= \_\_\_\_\_$

2. $80 \times 49 = (\_\_\_\_ \times \_\_\_\_) +$

$(\_\_\_\_ \times \_\_\_\_)$

$= \_\_\_\_\_ + \_\_\_\_\_$

$= \_\_\_\_\_$

A warehouse has many pieces of wood in stock. It is going to sell 312 bundles of wood with 20 pieces of wood in each bundle. How many pieces of wood will be sold?

3. Write an expression to help you solve the problem.

_____

4. Find the total number of pieces of wood sold.

_____

During a bad storm, Benny is using candles for light. He has 30 candles and each one burns for about 115 minutes. How many minutes of light does Benny have?

5. Write an expression to help you solve the problem.

_____

6. Find the number of minutes of light in 30 candles.

_____

Mixed Review

7. Mr. Rawlins has 57 fifth graders in two classes. He gives them a test with 30 questions on it. How many questions will he have to read to grade papers?

_____

8. Antoin has $12.50. He wants to buy 20 pens that cost 80¢ each. Does he have enough money?

_____

9. $(13 + 2) \times n = 60$

_____

10. $12 - (3 \times 3) = y$

_____

11. $(42 - 22) + x = 31$

_____

Name _____

LESSON 12.1

Multiply by 2-Digit Numbers

Use regrouping of partial products to find the product. Estimate to check.

1. $\begin{array}{r} 62 \\ \times 35 \\ \hline \end{array}$

2. $\begin{array}{r} 55 \\ \times 29 \\ \hline \end{array}$

3. $\begin{array}{r} 73 \\ \times 44 \\ \hline \end{array}$

4. $\begin{array}{r} 48 \\ \times 27 \\ \hline \end{array}$

5. $\begin{array}{r} 81 \\ \times 17 \\ \hline \end{array}$

6. $\begin{array}{r} 67 \\ \times 23 \\ \hline \end{array}$

7. $\begin{array}{r} 26 \\ \times 18 \\ \hline \end{array}$

8. $\begin{array}{r} 32 \\ \times 24 \\ \hline \end{array}$

9. $\begin{array}{r} \$74 \\ \times\ 16 \\ \hline \end{array}$

10. $\begin{array}{r} 69 \\ \times 36 \\ \hline \end{array}$

11. $\begin{array}{r} \$39 \\ \times\ 35 \\ \hline \end{array}$

12. $\begin{array}{r} 76 \\ \times 11 \\ \hline \end{array}$

13. $14 \times 53 =$ _____

14. $\$26 \times 77 =$ _____

15. $\$26 \times 74 =$ _____

16. $21 \times 79 =$ _____

Mixed Review

Write the missing product.

17. $30 \times 19 = 570$, so $30 \times 18 =$ ☐

18. $65 \times 15 = 975$, so $65 \times 16 =$ ☐

19. $40 \times 21 = 840$, so $40 \times 22 =$ ☐

20. $\begin{array}{r} 29 \\ \times\ 5 \\ \hline \end{array}$

21. $\begin{array}{r} 17 \\ \times\ 4 \\ \hline \end{array}$

22. $\begin{array}{r} 38 \\ \times\ 9 \\ \hline \end{array}$

23. $\begin{array}{r} 52 \\ \times\ 8 \\ \hline \end{array}$

24. $\begin{array}{r} 91 \\ \times\ 3 \\ \hline \end{array}$

25. $12 \times 4 =$ _____

26. $8 \times 8 =$ _____

Name _____

LESSON 12.2

More About Multiplying by 2-Digit Numbers

Find the product. Estimate to check.

1. 221 × 17

2. $447 × 36

3. 727 × 32

4. 362 × 27

5. 549 × 22

6. $7.29 × 46

7. 636 × 34

8. 659 × 73

9. $74 \times 138 =$ _____

10. $25 \times 808 =$ _____

11. $89 \times \$465 =$ _____

12. $19 \times \$517 =$ _____

Find the value for *n* that makes the equation true.

13. $n \times 720 = 10{,}800$

14. $491 \times n = 8{,}838$

15. $n \times 679 = 5{,}432$

_____ _____ _____

Mixed Review

16. $(25 \div 5) + 10$

17. $40 \div (2 \times 4)$

18. $(48 \div 8) \times (3 + 8)$

_____ _____ _____

19. 6,442 + 2,192

20. 4,612 − 895

21. 3,292 − 2,890

22. 6,505 − 398

23. 70 × 5

24. 25 × 6

25. 35 × 8

26. 40 × 5

27. 15 × 7

Name _____

LESSON 12.3

Multiply Greater Numbers

Find the product. Estimate to check.

1. $\begin{array}{r} 2{,}001 \\ \times \quad 96 \\ \hline \end{array}$

2. $\begin{array}{r} \$2{,}425 \\ \times \quad 24 \\ \hline \end{array}$

3. $\begin{array}{r} 3{,}478 \\ \times \quad 47 \\ \hline \end{array}$

4. $\begin{array}{r} \$5{,}699 \\ \times \quad 26 \\ \hline \end{array}$

5. $\begin{array}{r} 1{,}527 \\ \times \quad 76 \\ \hline \end{array}$

6. $\begin{array}{r} 3{,}639 \\ \times \quad 69 \\ \hline \end{array}$

7. $\begin{array}{r} 7{,}498 \\ \times \quad 55 \\ \hline \end{array}$

8. $\begin{array}{r} 6{,}643 \\ \times \quad 78 \\ \hline \end{array}$

9. $48 \times 2{,}769 =$ _____

10. $36 \times 4{,}873 =$ _____

Problems 11–12 show 2 common errors. Describe each error and correct it.

11.
$\begin{array}{r} 1{,}360 \\ \times 42 \\ \hline 272 \\ 5{,}440 \\ \hline 5{,}712 \end{array}$

_____

_____

12.
$\begin{array}{r} 2{,}966 \\ \times \quad 16 \\ \hline 17{,}796 \\ 29{,}660 \\ \hline 36{,}356 \end{array}$

_____

_____

Mixed Review

13. $(4 \times 7) \times 5$

_____

14. $(6 \times 10) \times 2$

_____

15. $(40 \div 8) \times 12$

_____

16. $\begin{array}{r} 19 \\ \times \ 60 \\ \hline \end{array}$

17. $\begin{array}{r} 29 \\ \times \ 11 \\ \hline \end{array}$

18. $\begin{array}{r} 32 \\ \times \ 28 \\ \hline \end{array}$

19. $\begin{array}{r} 2{,}511 \\ \times \ 16 \\ \hline \end{array}$

20. $\begin{array}{r} 787 \\ - \ 319 \\ \hline \end{array}$

21. $\begin{array}{r} 4{,}612 \\ - \ 895 \\ \hline \end{array}$

22. $\begin{array}{r} 3{,}292 \\ - \ 2{,}890 \\ \hline \end{array}$

23. $\begin{array}{r} 6{,}908 \\ - \ 5{,}002 \\ \hline \end{array}$

Name _____

LESSON 12.4

Practice Multiplication

Find the product. Estimate to check.

1. 2,091 × 26

2. $5.84 × 6

3. 518 × 27

4. $3.20 × 84

5. 3,493 × 36

6. $45.39 × 31

7. 2,949 × 26

8. 813 × 63

9. $40.30 × 64

10. $5,403 × 38

11. 942 × 81

12. 3,009 × 49

Mixed Review

13. School ended at 3:20 P.M. Ida walked to Sam's house, which took 20 minutes. She stayed there for 1 hour. Then she had to walk home. The walk from Sam's house to her home took 40 minutes. At what time did she get home?

_____

14. Marilu's dad has some weights in the basement. Marilu is trying to lift a box with 3 5-lb weights, 7 1-lb weights, and 2 7-lb weights. How much weight is in the box?

_____

Complete the table.

15.

×	5	7	2	8	3	9	12	6
12								

16. 10,000 − 5,794

17. 25,000 − 21,211

18. 19,000 − 9,655

19. 31,000 − 28,414

Name _____

Problem Solving Skill

Multistep Problems

For 1–4, use the table.

The school cafeteria can add two new meals to the menu. They have been testing four meals and will pick the one that is most popular and the one that brings in the most money. The table shows the number of students who ate each meal and the cost of each serving.

Food	number of students	cost of each serving
chicken patties	302	$1.12
veggie burger	309	$0.89
cheese sandwich	307	$0.95
lentil soup	189	$1.05

1. Write an expression to find the amount of money brought in by veggie burgers.

_____

2. How much money is brought in by sales of lentil soup?

_____

3. How much more money is brought in by chicken patties than by cheese sandwiches?

_____

4. Which two new meals will the cafeteria staff choose?

_____

_____

Mixed Review

5. $12.27 × 3

6. $8.99 × 4

7. $11.15 − 7.27

8. $19.89 − 6.40

9. $65 \times (437 - 81) = n$

_____

10. $312 \times n = 24{,}336$

_____

Name _____

LESSON 13.1

Divide with Remainders

Vocabulary

1. In a division problem, the _____ is the amount left over when a number is not evenly divided.

Make a model, record, and solve.

2. $4\overline{)19}$

3. $3\overline{)25}$

4. $6\overline{)38}$

5. $2\overline{)17}$

Divide. You may wish to use counters.

6. $7\overline{)61}$

7. $5\overline{)47}$

8. $3\overline{)19}$

9. $8\overline{)43}$

10. $6\overline{)58}$

11. $9\overline{)49}$

12. $2\overline{)13}$

13. $7\overline{)65}$

Mixed Review

Complete each table.

×	4	5	9	3	11	7	6	10
6								

×	11	12	5	8	7	4	6	2
12								

Name _____

LESSON 13.2

Model Division

Make or draw a model. Solve.

1. $52 \div 3 =$ _____
2. $68 \div 4 =$ _____
3. $65 \div 5 =$ _____
4. $7\overline{)91}$
5. $6\overline{)100}$
6. $2\overline{)58}$
7. $63 \div 3 =$ _____
8. $78 \div 4 =$ _____
9. $53 \div 4 =$ _____
10. $2\overline{)38}$
11. $3\overline{)48}$
12. $6\overline{)72}$

Mixed Review

For 13–15, use the table. The students in Mr. Jackson's class are holding a bake sale.

Kind of Cookie	Total Number
Chocolate chip	42
Oatmeal	65
Ginger	48

13. If Sara divides the chocolate chip cookies evenly into 3 bags, how many cookies does she put into each bag?

_____

14. If Tim divides the oatmeal cookies evenly into 5 bags, how many cookies does he put into each bag?

_____

15. Mr. Brown bought one bag of cookies for $1.75. What was his change from a $10 bill?

_____

Solve.

16. $\$17.50 + \$17.50$
17. $\$248.32 - \$119.55$
18. $\$49.68 - \$5.11$
19. $\$22.99 + \$85.98$

Name _____

LESSON 13.3

Division Procedures

Divide and check.

1. $2\overline{)64}$ Check:

2. $3\overline{)96}$ Check:

3. $4\overline{)51}$ Check:

4. $3\overline{)94}$ Check:

5. $7\overline{)93}$ Check:

6. $8\overline{)89}$ Check:

Mixed Review

7. Shari sold 114 boxes of cookies with 14 cookies in each box. How many cookies did she sell?

_____

8. A football stadium can seat 50,013 people. If 24,394 seats are empty, how many people are attending the game?

_____

9. $8 \times 9 = 72$

$9 \times 8 =$ _____

$72 \div$ _____ $= 8$

_____ $\div 8 = 9$

10. $12 \times 7 =$ _____

$7 \times 12 =$ _____

$84 \div 7 =$ _____

$84 \div 12 =$ _____

11. $7 \times 6 =$ _____

_____ $\times 7 = 42$

$42 \div 7 =$ _____

_____ $\div 6 =$ _____

Name _____

Problem Solving Strategy

Predict and Test

Predict and test to solve.

1. There were 93 students going to a nature camp. After equal groups were formed for hiking, 2 students were left over. There were fewer than 10 students in each group. How many groups were formed?

_____

2. During a hike, Sally and Dave collected 160 acorns. Sally collected 3 times as many acorns as Dave. How many acorns did Dave collect?

_____

3. The 93 nature camp students ate lunch at the lodge. They sat at an even number of tables. There were 5 students sitting at one table, and an equal number of students sitting at each of the other tables. How many students were sitting at each of the other tables?

_____

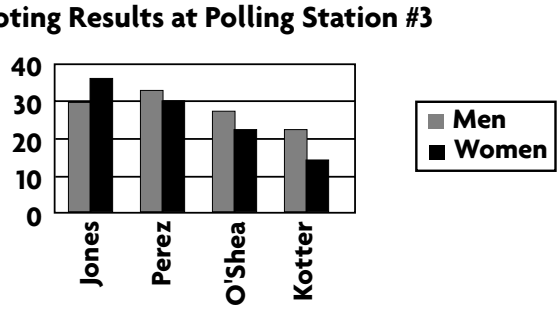
4. At one table, some of the students shared 3 pizzas. Each pizza was cut into 8 slices. After the students shared the pizza equally, there were 3 slices left over. How many students shared the pizza? How many slices of pizza did each student eat?

_____

_____

Mixed Review

Use the graph to answer 5–8.



5. For which candidate is the difference between the number of men's and women's votes the greatest?

_____

6. About how many women voted for Jones?

_____

7. About how many men voted for O'Shea?

_____

8. About how many people voted at Polling Station #3? _____

Name _____

LESSON 13.5

Mental Math: Division Patterns

Use a basic division fact and patterns to write each quotient.

1. $240 \div 6 =$ _____
$2{,}400 \div 6 =$ _____
$24{,}000 \div 6 =$ _____

2. $350 \div 5 =$ _____
$3{,}500 \div 5 =$ _____
$35{,}000 \div 5 =$ _____

3. $360 \div 4 =$ _____
$3{,}600 \div 4 =$ _____
$36{,}000 \div 4 =$ _____

Divide mentally. Write the basic division fact and the quotient.

4. $3\overline{)210}$ **5.** $4\overline{)2{,}800}$ **6.** $2\overline{)8{,}000}$ **7.** $9\overline{)450}$ **8.** $7\overline{)49{,}000}$

9. $8\overline{)40{,}000}$ **10.** $8\overline{)3{,}200}$ **11.** $4\overline{)120}$ **12.** $6\overline{)36{,}000}$ **13.** $5\overline{)2{,}000}$

Mixed Review

For Problems 14–16, use the table at the right.

14. The Shaw family drove from Boston to Houston in 6 days. If they drove about the same distance each day, about how many miles did they drive each day?

_____

ROAD MILEAGE FROM BOSTON, MA	
To City	**Number of Miles**
Kansas City, MO	1,391
Philadelphia, PA	296
Houston, TX	1,804

15. The Peters family drove from Boston to Philadelphia at an average speed of 50 miles per hour. About how many hours did they drive?

_____

16. Tom and his family left Boston on Monday morning to drive to Kansas City. If they drove about 200 miles each day, what day did they arrive at Kansas City?

_____

Name _____

Estimate Quotients

Choose the letter of the best estimate.

1. $359 \div 5$	**a.** 70 or 80	**b.** 7 or 8	**c.** 15 or 20
2. $715 \div 7$	**a.** 17 or 18	**b.** 10 or 11	**c.** 100 or 110
3. $156 \div 4$	**a.** 12 or 13	**b.** 40 or 50	**c.** 4 or 5

Estimate by using compatible numbers.

4. $2\overline{)175}$	**5.** $4\overline{)231}$	**6.** $6\overline{)375}$	**7.** $8\overline{)255}$
8. $5\overline{)2{,}681}$	**9.** $4\overline{)3{,}289}$	**10.** $8\overline{)4{,}007}$	**11.** $3\overline{)1{,}811}$
12. $3\overline{)241}$	**13.** $5\overline{)4{,}787}$	**14.** $5\overline{)388}$	**15.** $7\overline{)3{,}594}$

Mixed Review

Solve.

16. $2 \times 7 \times 2 =$ _____ **17.** $9 \times 5 \times 1 =$ _____ **18.** $2 \times 4 \times 7 =$ _____

19. $12 - 2 =$ _____ $+ 5$ **20.** $20 +$ _____ $= 16 + 24$ **21.** $9 \times 9 =$ _____ $\div 2$

22. \$15.72 − \$ 8.03	**23.** 62,109 − 45,863	**24.** \$14.38 + \$57.60	**25.** 1,990 + 3,473

Name _____

LESSON 14.1

Place the First Digit

Tell where to place the first digit. Then divide.

1. $5\overline{)36}$ _____

2. $3\overline{)62}$ _____

3. $2\overline{)173}$ _____

4. $6\overline{)72}$ _____

5. $4\overline{)241}$ _____

6. $7\overline{)702}$ _____

7. $9\overline{)381}$ _____

8. $4\overline{)820}$ _____

Find the quotient. Check by multiplying.

9. $6\overline{)45}$ Check:

10. $3\overline{)84}$ Check:

11. $5\overline{)149}$ Check:

12. $2\overline{)157}$ Check:

13. $3\overline{)171}$ Check:

14. $7\overline{)823}$ Check:

Mixed Review

15. $\begin{array}{r} 32 \\ \times\ 12 \\ \hline \end{array}$

16. $\begin{array}{r} 48 \\ \times\ 11 \\ \hline \end{array}$

17. $\begin{array}{r} 5{,}913 \\ -\ 2{,}708 \\ \hline \end{array}$

18. $\begin{array}{r} 25{,}926 \\ -\ 15{,}827 \\ \hline \end{array}$

Name _____

Divide 3-Digit Numbers

Divide.

1. $4\overline{)137}$ **2.** $3\overline{)325}$ **3.** $2\overline{)198}$ **4.** $7\overline{)924}$

Divide and check.

5. $3\overline{)152}$ Check: **6.** $2\overline{)542}$ Check: **7.** $5\overline{)627}$ Check:

8. $324 \div 6 =$ _____ Check: **9.** $647 \div 9 =$ _____ Check:

Mixed Review

10. $\begin{array}{r} 14 \\ \times\ 25 \\ \hline \end{array}$ **11.** $\begin{array}{r} 348 \\ \times\ 55 \\ \hline \end{array}$ **12.** $\begin{array}{r} 4{,}542 \\ \times\ 17 \\ \hline \end{array}$ **13.** $\begin{array}{r} 351 \\ \times\ 84 \\ \hline \end{array}$ **14.** $\begin{array}{r} 8{,}421 \\ \times\ 20 \\ \hline \end{array}$

15. $\begin{array}{r} 2{,}621 \\ +\ 5{,}892 \\ \hline \end{array}$ **16.** $\begin{array}{r} 7{,}457 \\ -\ 3{,}329 \\ \hline \end{array}$ **17.** $\begin{array}{r} \$29.82 \\ +\ 49.70 \\ \hline \end{array}$ **18.** $\begin{array}{r} 4{,}608 \\ -\ 3{,}789 \\ \hline \end{array}$ **19.** $\begin{array}{r} 4{,}816 \\ +\ 5{,}184 \\ \hline \end{array}$

Name _____

LESSON 14.3

Zeros in Division

Write the number of digits in each quotient.

1. $4\overline{)364}$ **2.** $6\overline{)612}$ **3.** $3\overline{)411}$ **4.** $7\overline{)105}$

5. $5\overline{)545}$ **6.** $8\overline{)432}$ **7.** $7\overline{)905}$ **8.** $2\overline{)123}$

Divide.

9. $3\overline{)312}$ **10.** $4\overline{)429}$ **11.** $6\overline{)526}$ **12.** $4\overline{)436}$

13. $6\overline{)724}$ **14.** $5\overline{)531}$ **15.** $9\overline{)250}$ **16.** $7\overline{)903}$

Mixed Review

17. $8 \times 6 =$ _____ **18.** $12 \times 2 =$ _____ **19.** $9 \times 8 =$ _____

20. $4 \times 4 =$ _____ **21.** $6 \times 5 =$ _____ **22.** $7 \times 7 =$ _____

23. $7 \times 3 =$ _____ **24.** $9 \times 6 =$ _____ **25.** $12 \times 3 =$ _____

26. $11 \times 6 =$ _____ **27.** $3 \times 8 =$ _____ **28.** $8 \times 8 =$ _____

Name _____

LESSON 14.4

Divide Greater Numbers

Divide.

1. $4\overline{)740}$ **2.** $5\overline{)630}$ **3.** $6\overline{)828}$ **4.** $7\overline{)756}$ **5.** $3\overline{)840}$

6. $9\overline{)945}$ **7.** $4\overline{)840}$ **8.** $2\overline{)734}$ **9.** $8\overline{)400}$ **10.** $7\overline{)483}$

11. $4\overline{)5{,}316}$ **13.** $5\overline{)6{,}030}$ **14.** $8\overline{)3{,}208}$ **16.** $6\overline{)1{,}680}$ **12.** $15.\ 5\overline{)6{,}600}$

Mixed Review

16. Evaluate: $(25 - 9) + (12 \div 3)$

17. Find the median: 3, 6, 4, 6, 3, 4, 6, 7, 2

18. Find the elapsed time.
Start time: 8:03 A.M.
End time: 2:51 P.M.

19. $36 \times 12 =$ _____

20. $88 \times 11 =$ _____

21. $54 \times 9 =$ _____

Name _____

LESSON 14.5

Problem Solving Strategy

Interpret the Remainder

Solve. Tell how you interpret the remainder.

1. The 158 fourth graders from the Glenwood School are going on a picnic. If there are 8 hot dogs in a package, how many packages are needed for each student to have 2 hot dogs?

_____

_____

2. Some of the students baked cookies for the picnic. Jeff baked 50 cookies. How many packages of 3 cookies each could he make?

_____

_____

3. The 158 students divide up into teams of 8 for a scavenger hunt. The students who are left over form a smaller team. How many teams are there?

_____

4. Mrs. Jackson bought 7 dozen eggs for an egg-tossing contest. If the 158 students divide into pairs, and each pair of students takes 1 egg, how many eggs are left over?

_____

Mixed Review

For 5–7, use the price list.

SCHOOL STORE PRICE LIST	
Item	**Price**
Pencil	$0.10
Eraser	$0.15
Ruler	$0.50

5. Kito bought 4 pencils, 2 erasers, and a ruler. How much money did he spend?

_____

6. On Monday, the store sold 20 pencils, 10 erasers, and 3 rulers. On Tuesday, the store sold 15 pencils, 13 erasers, and 3 rulers. On which day did the store take in more money?

_____

7. On Friday, the store received a new supply of 72 pencils. Bill arranged the new pencils in groups of 5. How many groups could he make? How many pencils were left over?

_____

_____

Name _____

Find the Mean

Vocabulary

Complete.

1. A(n) _____ is the number found by dividing the sum of a set of numbers by the number of addends.

Write the division problem. Then find the mean.

2. 7, 7, 10, 12, 14

_____

3. 3, 5, 6, 9, 12, 13

_____

4. 143, 99, 213, 407, 698

_____

5. 2,516, 6,518, 3,215, 4,327

_____

Find the mean.

6. 2,178; 4,214; 1,291

_____

7. 9,972; 2,755; 1,130

_____

Mixed Review

8. _____ × 1 = 7

_____ × 10 = 70

_____ × 100 = 700

9. _____ × 4 = 20

5 × _____ = 200

5 × _____ = 2,000

10. 8 × _____ = 56

_____ × 70 = 560

8 × 700 = _____

11. 10 tens 5 ones = _____ tens 15 ones

12. 8 tens 17 ones = 9 tens _____ ones

13. 3 hundreds 14 tens = _____ hundreds 4 tens

Name _____

LESSON 15.1

Division Patterns to Estimate

Write the numbers you would use to estimate the quotient.
Then estimate.

1. 58 ÷ 15 _____

2. 695 ÷ 65 _____

3. 556 ÷ 68 _____

4. 273 ÷ 32 _____

5. 447 ÷ 52 _____

6. 810 ÷ 42 _____

Estimate.

7. 45 ÷ 14 _____

8. 362 ÷ 64 _____

9. 596 ÷ 34 _____

10. 79 ÷ 19 _____

11. 462 ÷ 83 _____

12. 721 ÷ 78 _____

Complete the tables.

	Dividend	Divisor	Quotient
13.	60	÷ 30	_____
14.	_____	÷ 30	20
15.	6,000	÷ 30	_____
16.	_____	÷ 30	2,000

	Dividend	Divisor	Quotient
17.	80	÷ 20	_____
18.	_____	÷ 20	40
19.	_____	÷ 20	400
20.	80,000	÷ 20	_____

Mixed Review

21. $\begin{array}{r} 39 \\ \times\ 67 \\ \hline \end{array}$

22. $\begin{array}{r} 379 \\ \times\ 46 \\ \hline \end{array}$

23. $\begin{array}{r} 3{,}593 \\ \times\ 4 \\ \hline \end{array}$

24. $\begin{array}{r} 5{,}201 \\ \times\ 82 \\ \hline \end{array}$

25. 81 ÷ 9 = _____

26. 140 ÷ 5 = _____

27. 320 ÷ 8 = _____

28. 72 ÷ 8 = _____

29. 660 ÷ 6 = _____

30. 490 ÷ 7 = _____

Name _____

Model Division

Make a model to divide.

1. $15\overline{)67}$

2. $28\overline{)118}$

3. $21\overline{)85}$

4. $32\overline{)100}$

5. $35\overline{)176}$

6. $37\overline{)115}$

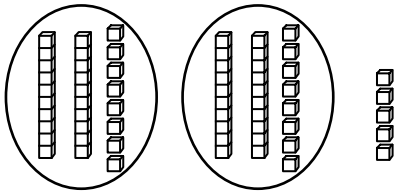
7. $78 \div 25 =$ _____

8. $97 \div 13 =$ _____

9. $117 \div 22 =$ _____

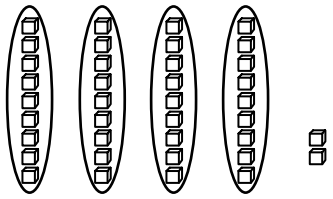
Use the model to complete the number sentence.

10.



$61 \div 28 =$ _____

11.



$38 \div 9 =$ _____

Mixed Review

12. $100{,}000 \times 700$

13. 495×39

14. $\$872.64 - \$41.98$

15. $\$784.32 + \$32.53$

16. $200{,}000 \times 3{,}100$

17. 702×44

18. $\$90.89 - \$89.77$

19. $\$645.30 + \$822.98$

Name _____

LESSON 15.3

Division Procedures

Divide.

1. $22\overline{)598}$

2. $16\overline{)239}$

3. $11\overline{)346}$

4. $21\overline{)369}$

5. $13\overline{)461}$

6. $12\overline{)293}$

7. $31\overline{)862}$

8. $28\overline{)981}$

9. $17\overline{)206}$

10. $19\overline{)81}$

11. $23\overline{)485}$

12. $28\overline{)150}$

Mixed Review

13. $4\overline{)532}$

14. $4\overline{)626}$

15.
$$\begin{array}{r} 90{,}008 \\ -\ 66{,}849 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 967 \\ \times\ \ 56 \\ \hline \end{array}$$

Name _____

LESSON 15.4

Correcting Quotients

Write *too high, too low,* or *just right* for each estimate. Then divide.

1. $17\overline{)152}$ → 8 _____ _____

2. $35\overline{)186}$ → 4 _____ _____

3. $42\overline{)351}$ → 7 _____ _____

4. $48\overline{)374}$ → 8 _____ _____

5. $52\overline{)419}$ → 7 _____ _____

6. $76\overline{)679}$ → 8 _____ _____

7. $63\overline{)556}$ → 9 _____ _____

8. $67\overline{)650}$ → 9 _____ _____

Mixed Review

9. Sue is packing 116 spools of thread into shoe boxes. Each box can hold 42 spools of thread. Will Sue be able to pack all the spools into 2 boxes? Explain.

_____

_____

10. Tony is estimating the time he needs to complete his math homework. He can complete about 3 problems per minute. If he allows 20 minutes, will he finish his 42 math problems? Explain.

_____

_____

Name _____

LESSON 15.5

Problem Solving Skill

Choose the Operation

Solve. Name the operation you used.

1. Mr. Murphy owns a bakery. On Saturday, he baked 60 blueberry muffins, 48 corn muffins, and 72 cranberry muffins. How many muffins did he bake in all?

_____

2. Mr. Murphy sold 498 cookies on Saturday. At the beginning of the day, there were 512 cookies. How many cookies were left at the end of the day?

_____

3. Susan bought 4 muffins for $0.79 each. How much money did she spend?

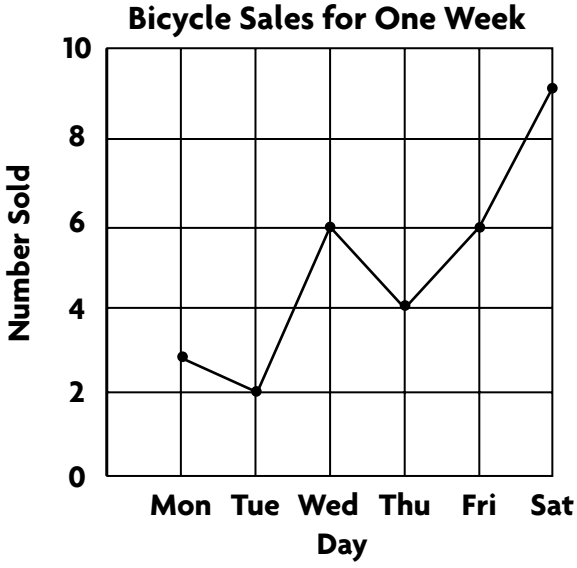
_____

4. Ryan paid $2.34 for 6 chocolate chip cookies. How much did each cookie cost?

_____

Mixed Review

For 5–7, use the graph.



5. How many bicycles were sold on Wednesday?

_____

6. How many bicycles were sold during the week?

_____

7. How many more bicycles were sold on Saturday than on Monday?

_____

8. Will wants to buy a bicycle that costs $109. He has already saved $45. If Will earns $8 each week, how many weeks will it take him to save enough money to buy the bicycle?

_____

9. Some days, Mary rides her bicycle to and from school. The distance is about 2 miles each way. In October, Mary rode her bicycle to and from school 14 times. About how many miles did she ride in October?

_____

Name _____

LESSON 16.1

Factors and Multiples

List the factors you can find in a multiplication table for each product.

1. 16 _____

2. 36 _____

3. 81 _____

4. 20 _____

5. 48 _____

6. 72 _____

3. 32 _____

8. 63 _____

Use a multiplication table to find four multiples for each number.

9. 4 _____

10. 9 _____

11. 6 _____

12. 3 _____

Use what you know about multiplication. Find as many factors as you can for each product.

13. 20 _____

14. 14 _____

15. 6 _____

16. 23 _____

17. 24 _____

18. 28 _____

19. 19 _____

20. 64 _____

Mixed Review

21. Find $8 - b$ if $b = 4$ _____

22. Find $80 \div m$ if $m = 8$ _____

23. Find $t \times 7$ if $t = 9$ _____

24. 4 weeks = ___?___ days _____

25. $8 + \text{O} = 2 \times 9$ _____

26.
$$\begin{array}{r} 6{,}511 \\ \times \quad 5 \\ \hline \end{array}$$

27. $8100 \div 90 =$ _____

28. $367 \div 21 =$ _____

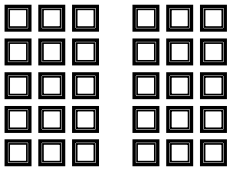
29. $40 \times 600 =$ _____

Name _____

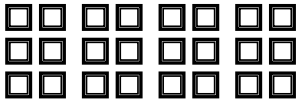
LESSON 16.2

Factor Numbers

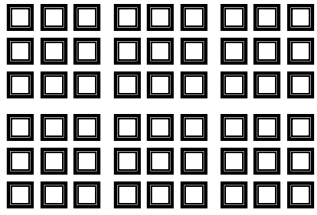
Write an equation for the arrays shown.

1. 

_____

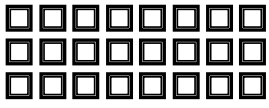
2. 

_____

3. 

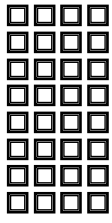
_____

Write two ways to break down the model.

4. 

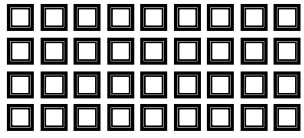
_____

_____

5. 

_____

_____

6. 

_____

_____

Write at least two ways to break down the number.

7. 56 _____

_____

8. 12 _____

_____

9. 42 _____

_____

10. 36 _____

_____

_____

11. 24 _____

_____

_____

12. 60 _____

_____

_____

Mixed Review

13. $\begin{array}{r} 8{,}516 \\ 563 \\ +\ 518 \\ \hline \end{array}$

14. $\begin{array}{r} 648{,}518 \\ +\ 315{,}849 \\ \hline \end{array}$

15. $\begin{array}{r} 900{,}002 \\ +\ 95{,}518 \\ \hline \end{array}$

16. $789 \div 33$ _____

17. $4{,}621 \div 15$ _____

18. $929 \div 31$ _____

19. $5{,}017 \div 6$ _____

Name _____

LESSON 16.3

Prime and Composite Numbers

Make arrays to find the factors. Write *prime* or *composite* for each number.

1. 19 _____ **2.** 32 _____ **3.** 81 _____ **4.** 36 _____

5. 27 _____ **6.** 56 _____ **7.** 29 _____ **8.** 18 _____

List as many factors as you can. Write *prime* or *composite* for each number.

9. 42 _____ **10.** 64 _____ **11.** 100 _____ **12.** 72 _____

13. 22 _____ **14.** 15 _____ **15.** 91 _____ **16.** 47 _____

Frances has to put cans on a shelf. Each shelf must have an equal number of cans. How many ways can she shelve the cans? List the ways.

17. **12 CANS**

18. **24 CANS**

19. **18 CANS**

Mixed Review

20. Train A traveled the 29 miles between Dell City and Mesabi 18 times. Train B traveled the 21 miles between Mesabi and Dodge 24 times. Which train traveled the most miles?

_____

21. Joanna left school at 3:30 P.M. She went to volleyball practice for 90 minutes. She stopped at her aunt's house for 75 minutes. What time did she get home?

_____

Name _____

LESSON 16.4

Find Prime Factors

Write each as a product of prime factors.

1. 36 _____
2. 81 _____
3. 18 _____
4. 27 _____
5. 32 _____
6. 34 _____
3. 88 _____
8. 96 _____
9. 72 _____
10. 20 _____
11. 144 _____
12. 55 _____
13. 56 _____
14. 256 _____
15. 38 _____
16. 71 _____

Write the missing factor.

17. $66 = 3 \times \blacksquare$ _____
18. $98 = 2 \times \blacksquare$ _____
19. $56 = 2 \times 2 \times 2 \times \blacksquare$ _____
20. $100 = 2 \times 2 \times \blacksquare \times \blacksquare$ _____

Mixed Review

21. Order from greatest to least
7,077 7,707 7,070 7,700 7,770 7,777
_____
_____

22. Order from least to greatest
4.106, 41.6, .4601, 6.01, 4.001
_____
_____

23. Estimate: $9{,}083 \times 59$ _____

24. Estimate: $\$4{,}593.93 - \$2{,}279.54$ _____

25. Estimate: $6\overline{)55}$ _____

26. Estimate: $9\overline{)85}$ _____

Name _____

Problem Solving Strategy

Find a Pattern

1. Continue the pattern.

1, 2, 6, 24, _____

2. Continue the pattern.

3, 9, 27, _____

3. Describe the pattern in Exercise 1.

_____

4. Describe the pattern in Exercise 2.

_____

5. What are the next two numbers in the following sequence?

1, 3, 7, 13, 19, ___, ___

_____

6. What are the next two symbols in the following sequence?

○□○□□○□□□○□ ___ ___

_____

7. Monica is playing a guessing game with her friends. When they say 5, she says 20. When they say 9, she says 36. When they say 2, she says 8. What is the pattern?

_____

8. Ruthie is writing a pattern where she gets a number by multiplying the last number by 2 and adding 3. Write the next two numbers.

1, 5, 13, 29, ___, ___

_____

Mixed Review

9. Melanie's family took a trip. The first day they drove 140 miles. The second day they drove 210 miles. The third day they drove 120 miles. The last day they drove 190 miles. What was their average daily mileage?

_____

10. Melanie's mother bought 30 gallons of gasoline during their trip. If they drove a total of 660 miles, how many miles did they drive on each gallon of gasoline?

_____

11. If gasoline costs $1.45 a gallon, how much did Melanie's mother spend on gasoline for their trip?

_____

12. How much less would Melanie's mother have spent on gas if gas had cost $1.25 per gallon?

_____

Name _____

LESSON 17.1

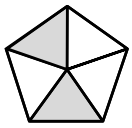
Read and Write Fractions

Vocabulary

Fill in the blank.

1. A number that names a part of a whole is a _____.

Write a fraction for the shaded part. Write a fraction for the unshaded part.

2. 

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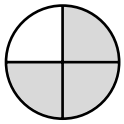
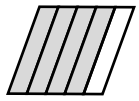
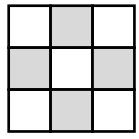
3. 

_____

4. 

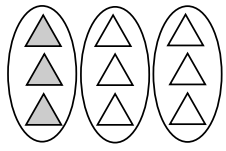
_____

5. 

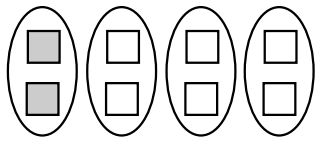
_____

6. 

_____

7. 

_____

8. 

_____

Draw a picture and shade part of it to show the fraction. Write a fraction for the unshaded part.

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

_____

10. $\frac{7}{8}$

_____

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

_____

Mixed Review

12. $\begin{array}{r} 12 \\ \times\ 5 \\ \hline \end{array}$

13. $\begin{array}{r} 11 \\ \times\ 7 \\ \hline \end{array}$

14. $\begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array}$

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

16. $\begin{array}{r} 12 \\ \times\ 8 \\ \hline \end{array}$

17. $5\overline{)85}$

18. $9\overline{)81}$

19. $4\overline{)88}$

20. $12\overline{)144}$

21. $7\overline{)56}$

Name _____

LESSON 17.2

Equivalent Fractions

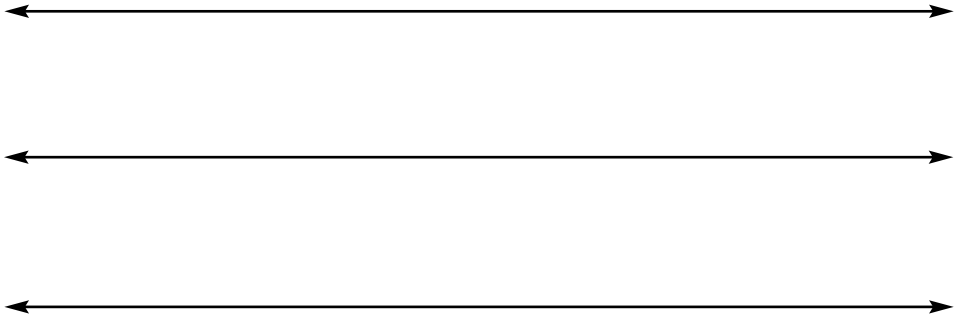
Vocabulary

Fill in the blank.

1. Fractions that name the same amount are called

_____

Use fraction bars or number lines to find at least one equivalent fraction for each.



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

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

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

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

6. $\frac{2}{8} =$ _____

7. $\frac{5}{6} =$ _____

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

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

10. $\frac{6}{12} =$ _____

11. $\frac{4}{12}$ _____

12. $\frac{4}{5} =$ _____

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

Mixed Review

14. $13 - 7 = \_\_\_\_ \times 3$

15. $20 \div \_\_\_\_ = 14 - 12$

16. $\_\_\_\_ + 49 = 81 - 15$

17. $4 \times 12 = 48 \div \_\_\_\_$

18. $63 + \_\_\_\_ = 71 + 19$

19. $55 \div \_\_\_\_ = 29 - 24$

20. $3 \times 3 \times 3 \times \_\_\_\_ = 54$

21. $4 \times \_\_\_\_ \times 2 = 32$

22. $7 \times 2 \times \_\_\_\_ = 14$

Name _____ LESSON 17.3

Equivalent Fractions

Vocabulary

Fill in the blank.

1. A fraction whose numerator and denominator can both be divided evenly only by one is in _____.

Write two equivalent fractions for each.

2. $\frac{5}{10}$ _____ _____

3. $\frac{6}{18}$ _____ _____

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

5. $\frac{8}{20}$ _____ _____

6. $\frac{4}{12}$ _____ _____

7. $\frac{10}{20}$ _____ _____

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

9. $\frac{9}{36}$ _____ _____

Tell whether each fraction is in simplest form. If not, write it in simplest form.

10. $\frac{3}{4}$ _____

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

12. $\frac{4}{5}$ _____

13. $\frac{3}{7}$ _____

14. $\frac{9}{12}$ _____

15. $\frac{2}{8}$ _____

16. $\frac{16}{32}$ _____

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

Find the missing numerator or denominator.

18. $\frac{6}{12} = \frac{\_}{2}$

19. $\frac{3}{9} = \frac{1}{\_}$

20. $\frac{3}{12} = \frac{1}{\_}$

21. $\frac{5}{15} = \frac{\_}{3}$

22. $\frac{4}{10} = \frac{2}{\_}$

23. $\frac{9}{18} = \frac{\_}{2}$

24. $\frac{4}{16} = \frac{1}{\_}$

25. $\frac{12}{24} = \frac{\_}{2}$

Mixed Review

Estimate.

26. $6{,}834 \times 28$ _____

27. $975 \div 11$ _____

28. $3{,}210 \times 49$ _____

29. $495 \div 52$ _____

29. $888 \div 29$ _____

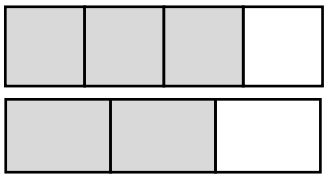
31. $9{,}011 \times 11$ _____

Name _____

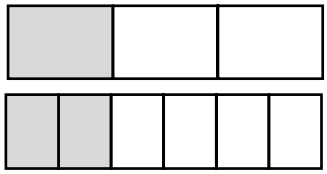
LESSON 17.4

Compare and Order Fractions

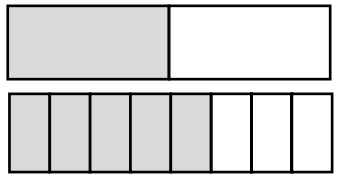
Write the fraction for each model. Then compare, using $<$, $>$, or $=$.

1. 

_____

2. 

_____

3. 

_____

Write <, >, or = in ◯.

4. $\frac{1}{3}$ ◯ $\frac{1}{4}$

5. $\frac{5}{6}$ ◯ $\frac{4}{6}$

6. $\frac{1}{2}$ ◯ $\frac{6}{12}$

7. $\frac{3}{4}$ ◯ $\frac{3}{5}$

8. $\frac{2}{5}$ ◯ $\frac{3}{5}$

9. $\frac{1}{8}$ ◯ $\frac{1}{7}$

10. $\frac{2}{4}$ ◯ $\frac{1}{2}$

11. $\frac{4}{8}$ ◯ $\frac{4}{10}$

Order the fractions from *greatest* to *least*. Use the models, fraction bars, or a number line to help you.

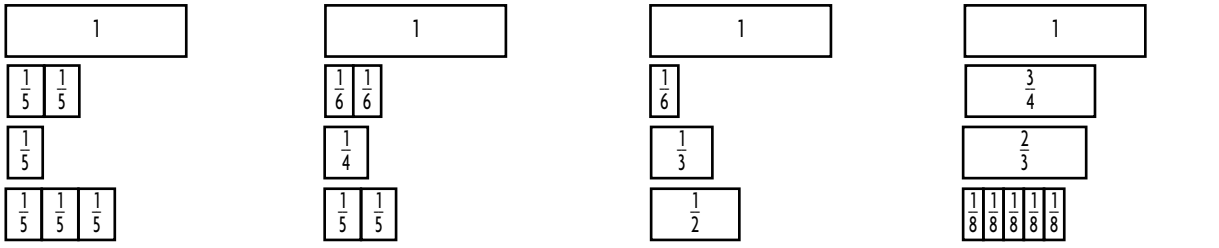
12. $\frac{2}{5}$, $\frac{1}{5}$, $\frac{3}{5}$

13. $\frac{2}{6}$, $\frac{1}{4}$, $\frac{2}{5}$

14. $\frac{1}{6}$, $\frac{1}{3}$, $\frac{1}{2}$

15. $\frac{3}{4}$, $\frac{2}{3}$, $\frac{5}{8}$

_____ _____ _____ _____



Order the fractions from *least* to *greatest*.

16. $\frac{3}{12}$, $\frac{4}{10}$, $\frac{2}{3}$

17. $\frac{5}{8}$, $\frac{1}{2}$, $\frac{2}{3}$

18. $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{5}$

19. $\frac{4}{6}$, $\frac{7}{12}$, $\frac{2}{5}$

_____ _____ _____ _____

Mixed Review

Write each fraction in simplest form.

20. $\frac{3}{12}$ _____

21. $\frac{5}{25}$ _____

22. $\frac{6}{18}$ _____

23. $\frac{7}{49}$ _____

Solve.

24. $\begin{array}{r} 7{,}919 \\ \times \quad 4 \\ \hline \end{array}$

25. $\begin{array}{r} 4{,}111 \\ + \quad 16 \\ \hline \end{array}$

26. $\begin{array}{r} 3{,}219 \\ + 1{,}808 \\ \hline \end{array}$

27. $\begin{array}{r} 6{,}425 \\ \times \quad 9 \\ \hline \end{array}$

Name _____

LESSON 17.5

Problem Solving Strategy

Make a Model

Make a model to solve.

1. The cafeteria made a punch using $\frac{1}{2}$ gallon of apple juice, $\frac{5}{8}$ gallon of orange juice, and $\frac{2}{3}$ gallon of raspberry juice. List the juices in order from greatest to least.

_____

2. A school had 3 music groups, each with 24 students. The choir was made up of $\frac{1}{3}$ boys, the band was $\frac{3}{4}$ boys, and the orchestra was $\frac{5}{8}$ boys. Which music group had the greatest fraction of girls?

_____

3. Kyle bought cookies at a bakery. He bought $\frac{1}{2}$ dozen oatmeal cookies, $\frac{2}{3}$ dozen cinnamon cookies, and $\frac{3}{4}$ dozen chocolate cookies. List each part of a dozen cookies in order from greatest to least.

_____

_____

4. Katrina made a square design with 25 tiles. She used 9 red tiles for the diagonals, 12 yellow tiles to complete the outside border, and 4 blue tiles to complete the center. Show what Katrina's design looked like.

Mixed Review

Solve.

5. $13\overline{)6{,}249}$

6. $8\overline{)9{,}122}$

7. $12\overline{)2{,}424}$

8. $4\overline{)3{,}175}$

9. $12 \times (9 - 3) =$ ____

10. $(4 + 4) \times 8 =$ ____

11. $(15 - 4) \times 9 =$ ____

Name _____ LESSON 17.6

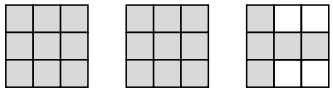
Mixed Numbers

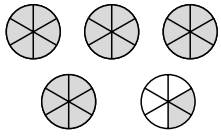
Vocabulary

Fill in the blank.

1. A _____ is made up of a whole number and a fraction.

Write a mixed number for each picture.

2. 

3. 

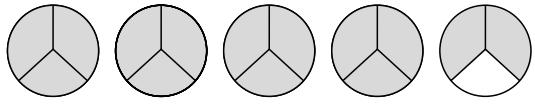
4. 

_____ _____ _____

Rename each fraction as a mixed number. You may wish to draw a picture.

5. $\frac{16}{3}$ _____ 6. $\frac{9}{2}$ _____ 7. $\frac{17}{6}$ _____ 8. $\frac{13}{4}$ _____

For Exercises 9–11, use the figures at the right.



9. How many whole figures are shaded? Into how many equal parts is each figure divided?

_____

10. How many parts in the fifth figure are shaded?

_____

11. What fraction and mixed number can you write for the shaded parts of the figures? _____

Mixed Review

12. $4 \times 4 =$ ____ 13. $9 \times 5 =$ ____ 14. $8 \times 7 =$ ____ 15. $24 \times 1 =$ ____

16. $48 \div 12 =$ ____ 17. $66 \div 11 =$ ____ 18. $72 \div 9 =$ ____ 19. $121 \div 11 =$ ____

Name _____

LESSON 18.1

Add Like Fractions

Find the sum.

1. $\frac{3}{6} + \frac{1}{6} =$ ____

2. $\frac{1}{8} + \frac{6}{8} =$ ____

3. $\frac{3}{5} + \frac{4}{5} =$ ____

4. $\frac{5}{12} + \frac{2}{12} =$ ____

5. $\frac{6}{10} + \frac{7}{10} =$ ____

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

7. $\begin{array}{r} \frac{2}{5} \\ +\frac{1}{5} \\ \hline \end{array}$

8. $\begin{array}{r} \frac{5}{9} \\ +\frac{4}{9} \\ \hline \end{array}$

9. $\begin{array}{r} \frac{2}{11} \\ +\frac{4}{11} \\ \hline \end{array}$

Compare. Write $<$, $>$ or $=$ in each ◯.

10. $\frac{2}{9} + \frac{3}{9}$ ◯ $\frac{4}{9}$

11. $\frac{1}{6} + \frac{2}{6}$ ◯ $\frac{1}{2}$

12. $\frac{5}{9} + \frac{8}{9}$ ◯ 1

Find the value of *n*.

13. $\frac{2}{7} + \frac{4}{n} = \frac{6}{7}$ _____

14. $\frac{3}{13} + \frac{n}{13} = \frac{9}{13}$ _____

15. $\frac{6}{9} + \frac{1}{n} = \frac{7}{9}$ _____

16. $\frac{9}{n} + \frac{1}{4} = 1$ _____

Mixed Review

17. $7 + 7 + 7 + 7 =$ _____

18. $12 + 12 + 12 + 12 + 12 =$ _____

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

20. $\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$

21. $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$

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

Write an equivalent fraction for each.

23. $\frac{7}{14}$ _____

24. $\frac{16}{40}$ _____

25. $\frac{12}{36}$ _____

26. $\frac{9}{90}$ _____

27. $\frac{6}{18}$ _____

Name _____

LESSON 18.2

Subtract Like Fractions

Use fraction bars to find the difference.

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

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

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

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

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

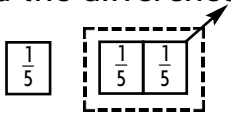
6. $\frac{6}{8} - \frac{2}{8} =$ _____

7. $\frac{10}{12} - \frac{5}{12} =$ _____

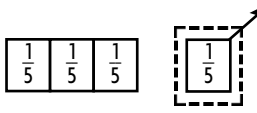
8. $\frac{7}{10} - \frac{3}{10} =$ _____

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

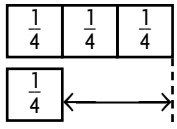
Find the difference.

10. 

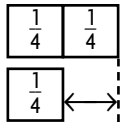
_____

11. 

_____

12. 

_____

13. 

_____

14. $\frac{1}{12} + \frac{5}{12} =$ _____

15. $\frac{3}{8} + \frac{3}{8} =$ _____

16. $\frac{4}{7} + \frac{5}{7} =$ _____

Mixed Review

17. $\begin{array}{r} 487 \\ \times\ 22 \\ \hline \end{array}$

18. $\begin{array}{r} 68 \\ \times\ 95 \\ \hline \end{array}$

19. $\begin{array}{r} 3{,}287 \\ \times\ 17 \\ \hline \end{array}$

20. $\begin{array}{r} 8{,}061 \\ \times\ 40 \\ \hline \end{array}$

21. $15\overline{)30}$

22. $5\overline{)30}$

23. $3\overline{)30}$

Name _____

LESSON 18.3

Add and Subtract Mixed Numbers

Find the sum or difference.

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

2. $6\frac{4}{10} + 4\frac{3}{10}$

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

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

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

6. $8\frac{6}{8} - 3\frac{2}{8}$

7. $9\frac{8}{12} + 6\frac{4}{12}$

8. $4\frac{5}{6} - 3\frac{3}{6}$

9. $7\frac{8}{9} - 6\frac{1}{9}$

10. $9\frac{9}{10} + 5\frac{2}{10}$

11. $8\frac{2}{4} + 6\frac{1}{4}$

12. $3\frac{10}{12} - 1\frac{7}{12}$

13. $7\frac{4}{5} - 1\frac{3}{5} =$ _____

14. $9\frac{5}{8} + 4\frac{4}{8} =$ _____

15. $4\frac{6}{9} - 2\frac{2}{9} =$ _____

16. $5\frac{9}{12} + 2\frac{3}{12} =$ _____

17. $9\frac{2}{5} + 3\frac{1}{5} =$ _____

18. $6\frac{7}{10} - 2\frac{5}{10} =$ _____

Mixed Review

Compare. Write $<$, $>$ or $=$ in each ◯.

19. $6\frac{1}{7} + 3\frac{5}{7}$ ◯ 10

20. $3\frac{1}{4}$ ◯ $1\frac{5}{8} + 1\frac{5}{8}$

21. $16\frac{7}{10} - 7\frac{7}{10}$ ◯ 10

22. 48 + 78

23. 63 − 57

24. 140 − 79

25. 224 + 865

26. 370 − 263

Problem Solving Skill

Choose the Operation

Write the operation. Then solve each problem.

1. Henry and Cyndi each ate $\frac{1}{3}$ of a small cake. What fraction of the cake did they eat?

_____

2. Linda baked a huge cookie for her friends. Sue ate $\frac{5}{8}$ of the cookie and Mary ate $\frac{3}{8}$. How much more of the cookie did Sue eat?

_____

3. Phillip likes to ride his bike, skateboard, and read in his spare time. He spends $\frac{2}{8}$ of his time riding his bike and $\frac{5}{8}$ of his time skateboarding. How much of his spare time does he have left to spend reading?

_____

4. Mr. Jones baked 12 cupcakes for the class party. Before lunch $\frac{3}{12}$ of the cupcakes were eaten. After lunch $\frac{5}{12}$ of the cupcakes were eaten. What fraction of the cupcakes were left for a snack after school?

_____

Mixed Review

Solve.

5. At the end of five days Joseph had saved $30. If each day he saved $2 more than the day before, how much money did Joseph save each day?

_____

6. A series of numbers starts with 2. Each number in the series is two times as great as the number before it. What is the sixth number in the series?

_____

7. $20.22 + $15.24	**8.** $38.40 − $19.99	**9.** 2,649 − 1,670	**10.** 9,028 + 3,840	**11.** $38.20 − $88.79

Name _____

LESSON 18.5

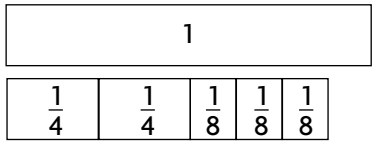
Add Unlike Fractions

Use fraction bars to find the sum.

1.

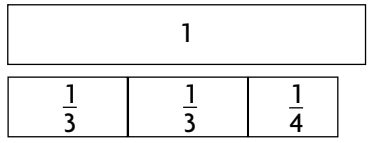
_____

2.



_____

3.



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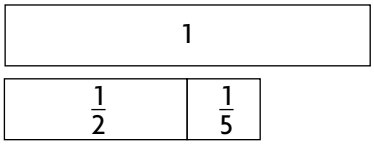
4.



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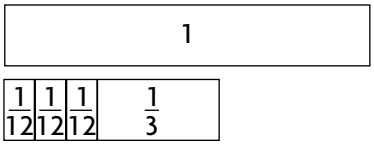
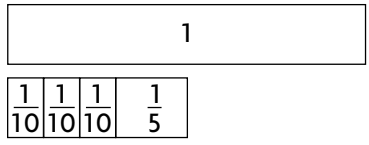
5.



_____

6.



_____

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

_____

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

_____

9. $\frac{3}{4} + \frac{1}{6}$

_____

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

_____

11. $\frac{4}{10} + \frac{3}{5}$

_____

12. $\frac{4}{5} + \frac{7}{10}$

_____

Mixed Review

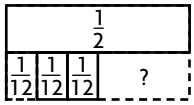
13. $19\overline{)4{,}999}$ **14.** $32\overline{)6{,}471}$ **15.** $17\overline{)219}$ **16.** $3\overline{)8{,}536}$ **17.** $8\overline{)830}$

Name _____

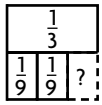
Subtract Unlike Fractions

Use fraction bars to find the difference.

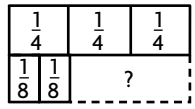
1.



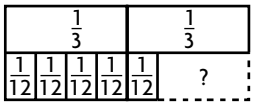
2.



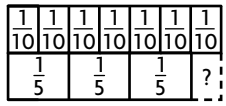
3.



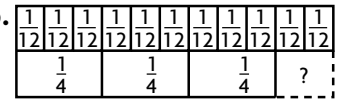
4.



5.



6.



7. $\frac{4}{5} - \frac{3}{10} = n$

8. $\frac{4}{6} - \frac{5}{12} = n$

9. $\frac{5}{6} - \frac{5}{12} = n$

10. $\frac{1}{2} - \frac{4}{10} = n$

11. $\frac{6}{8} - \frac{1}{2} = n$

12. $\frac{2}{3} - \frac{3}{6} = n$

13. $\frac{1}{2} - \frac{1}{8} = n$

14. $\frac{9}{12} - \frac{2}{3} = n$

15. $\frac{4}{6} - \frac{1}{12} = n$

16. $\frac{7}{8} - \frac{1}{4} = n$

17. $\frac{11}{12} - \frac{1}{3} = n$

18. $\frac{4}{6} - \frac{1}{2} = n$

Mixed Review

Order from least to greatest.

19. $\frac{7}{10}, \frac{5}{10}, \frac{2}{5}, \frac{8}{10}$

20. $1\frac{1}{3}, \frac{6}{3}, \frac{1}{6}, \frac{5}{6}$

21. $1, \frac{4}{10}, \frac{8}{10}, \frac{11}{10}$

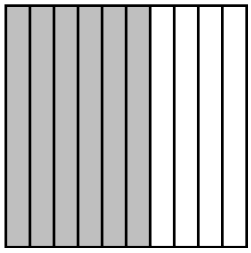
Name _____

LESSON 19.1

Relate Fractions and Decimals

Write the decimal and fraction shown by each model or number line.

1.



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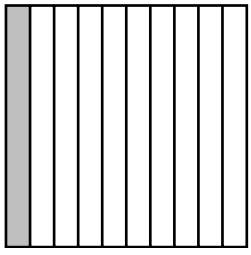

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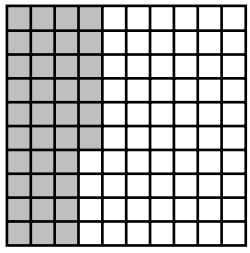

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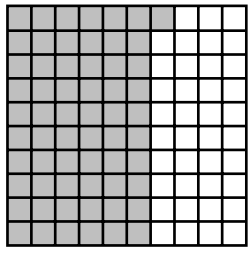

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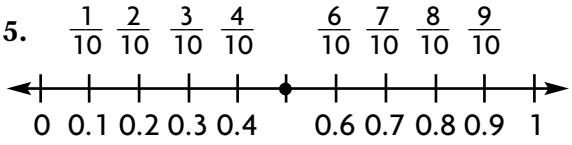
5.



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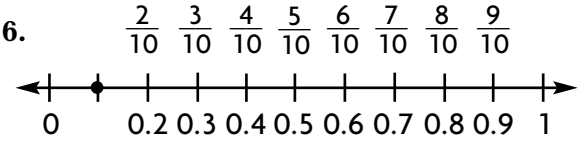
6.



_____

Write each fraction as a decimal.

7. $\frac{6}{10}$ _____

8. $\frac{8}{10}$ _____

9. $\frac{39}{100}$ _____

10. $\frac{64}{100}$ _____

Write the decimal two other ways.

10. 0.2 _____

_____

11. 0.4 _____

_____

12. 0.12 _____

_____

13. 0.66 _____

_____

Mixed Review

14. During his vacation, Brian used 7 rolls of 24-photo film. How many photos did Brian take?

_____

15. If 8 students can sit at one table, how many tables are needed to seat 134 students?

_____

16.
$$\begin{array}{r} 17 \\ \times\ 17 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 11 \\ \times\ 11 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 100 \\ \times\ 100 \\ \hline \end{array}$$

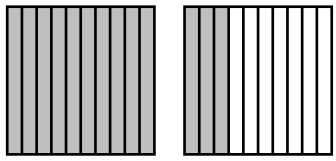
19.
$$\begin{array}{r} 18 \\ \times\ 18 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 12 \\ \times\ 12 \\ \hline \end{array}$$

Name _____

Decimals Greater Than 1

Write the decimal and its word name for each model.

1. 

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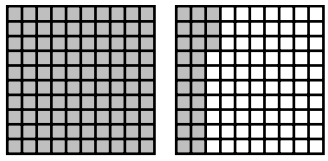
2. 

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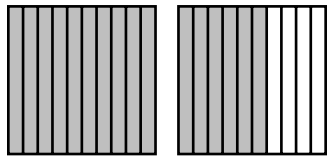
_____

3. 

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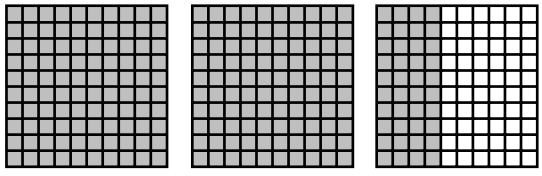
_____

4. 

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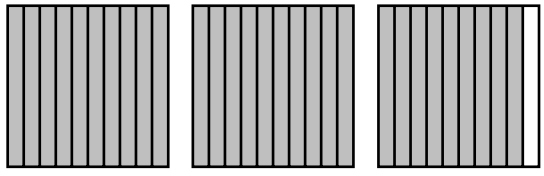
_____

5. 

_____

_____

Write each mixed number as a decimal and each decimal as a mixed number.

6. $4\frac{3}{10}$ _____ **7.** $6\frac{1}{10}$ _____ **8.** $2\frac{3}{100}$ _____ **9.** $4\frac{56}{100}$ _____

10. 2.46 _____ **11.** 1.5 _____ **12.** $4\frac{70}{100}$ _____ **13.** 3.4 _____

Find the missing number.

14. $3.n = 3\frac{2}{10}$ _____ **15.** $6.90 = 6\frac{n}{100}$ _____ **16.** $2\frac{20}{n} = 2.20$ _____ **17.** $8.7 = 8\frac{7}{n}$ _____

Mixed Review

18. John hiked $\frac{2}{3}$ miles on Monday and $\frac{5}{6}$ miles on Tuesday. On which day did he hike farther?

_____

19. Tony has read 45 of the 100 pages in his book. Write a fraction in simplest form to show how much of the book Tony has read.

_____

Name _____ LESSON 19.3

Equivalent Decimals

Vocabulary

Complete.

1. _____ are decimals that name the same number.

Are the two decimals equivalent? Write *yes* or *no.*

2. 0.4 and 0.40 _____
3. 0.1 and 0.01 _____
4. 0.50 and 0.5 _____
5. 0.20 and 0.02 _____
6. 0.3 and 0.30 _____
7. 0.80 and 0.8 _____
8. 0.9 and 0.90 _____
9. 0.18 and 0.81 _____

Write an equivalent decimal for each. You may use decimal models.

10. 0.7 _____
11. 0.1 _____
12. 0.60 _____
13. 0.4 _____
14. 0.20 _____
15. 0.8 _____
16. 0.30 _____
17. 0.5 _____
18. 0.90 _____
19. 0.3 _____

Mixed Review

20. $\frac{7}{10} + \frac{7}{10} =$ _____
21. $1\frac{4}{5} + 1\frac{4}{5} =$ _____
22. $3\frac{8}{9} + 3\frac{8}{9} =$ _____
23. $5\frac{4}{5} - 1\frac{3}{5} =$ _____
24. $\frac{10}{9} + 3\frac{5}{9} =$ _____
25. $\frac{7}{6} - \frac{2}{3} =$ _____
26. $0.8 + 0.2 =$ _____
27. $0.9 - 0.1 =$ _____
28. $0.4 + 0.4 =$ _____

Name _____

Compare and Order Decimals

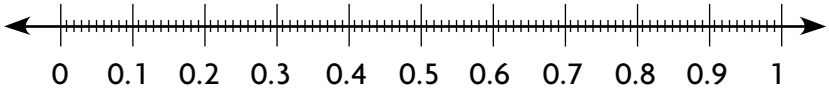
Compare. Write $<$, $>$ or $=$ in each ◯.

1. 0.45 ◯ 0.35 **2.** 0.4 ◯ 0.6 **3.** 0.9 ◯ 0.91 **4.** 0.6 ◯ 0.64

5. 0.50 ◯ 0.55 **6.** 0.7 ◯ 0.17 **7.** 0.02 ◯ 0.22 **8.** 0.49 ◯ 0.4

9. 0.32 ◯ 0.23 **10.** 0.46 ◯ 0.47 **11.** 0.25 ◯ 0.2 **12.** 0.02 ◯ 0.22

Use the number line to order the decimals from greatest to least.



13. 0.45, 0.54, 0.40, 0.04

_____

14. 0.4, 0.5, 0.04, 0.05, 0.45

_____

15. 0.13, 0.31, 0.3, 0.01, 0.03

_____

16. 0.67, 0.7, 0.76, 0.07, 0.6

_____

17. 0.14, 0.24, 0.20, 0.21, 0.04

_____

18. 0.19, 0.20, 0.1, 0.09, 0.29

_____

Mixed Review

19. Rosie's Umbrella Shop is selling umbrellas for $4.00 off the usual price of $15.00. What is the cost of buying 3 sale umbrellas?

_____

20. To prepare for a presentation, Pete colored $\frac{1}{2}$ of a poster. Rebecca colored $\frac{1}{3}$ of the poster. What fraction still needs to be colored?

_____

Write an equivalent decimal for each.

21. 0.4 _____ **22.** 0.60 _____ **23.** 0.8 _____ **24.** 0.7 _____

Name _____

LESSON 19.5

Problem Solving Strategy

Use Logical Reasoning

Use logical reasoning to solve.

1. Mr. Berg's science class grew tomato plants. The recorded heights of the plants were 13 cm, 15 cm, 17 cm, and 20 cm. Jim's plant was the tallest. Steve's plant was 2 cm taller than Mark's. Eric's plant was the smallest. How tall was Mark's plant?

_____

2. Four students ran a race in gym class. Erica had the fastest time of 10.5 seconds. The other recorded times were 13 seconds, 15 seconds and 20 seconds. Janie was slower than Erica, but faster than Mike. Joe was the slowest. What were Janie and Mike's times?

_____

3. Stephanie's class took a spelling test. The scores were 90, 86, 89, 94, and 100. Stephanie got a higher grade than Mike. Sue scored 3 points higher than Joe. Ellen received the highest score. What was Stephanie's spelling grade?

_____

4. The Nature Club recorded the number of birds at the bird feeder each day for a week. On Monday the club saw 15 birds. The numbers of birds at the feeder on the other days were 12, 13, 19, and 20. On Tuesday, the club saw the fewest birds. On Wednesday, the club saw fewer birds than on Monday. On Friday, the club saw the most birds. How many birds did the club see on Thursday ?

_____

Mixed Review

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

_____

6. List the factors of 21.

_____

7. Order from least to greatest: 0.1, 3.00, 0.97, 0.08

_____

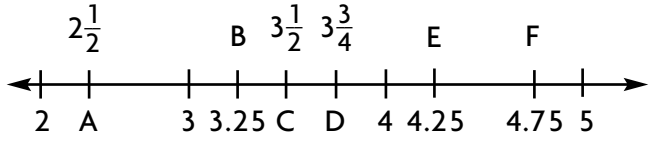
8. $8\overline{)128}$

_____

Name _____

Relate Mixed Numbers and Decimals

Use the number line to write an equivalent mixed number or decimal for the given letter.

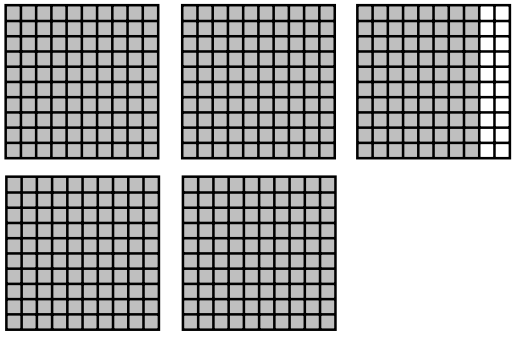


1. A _____ **2.** B _____ **3.** C _____

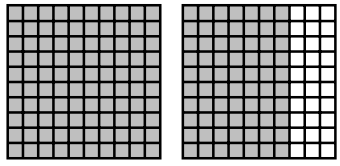
4. D _____ **5.** E _____ **6.** F _____

Write a decimal and a mixed number that are equivalent to each decimal model below.

7.



8.



_____ _____

Write an equivalent mixed number or a decimal.

9. 12.75 _____ **10.** 5.50 _____ **11.** $6\frac{1}{5}$ _____

Mixed Review

12. What digit is in the ten thousands place in the number 24,639?

_____

13. These are Anna's spelling scores for 1 week: 86, 90, 85, 94, and 80. What is the median?

_____

14. List the first 5 multiples of 3.

_____

15. List the factors of 50.

_____

Name _____

LESSON 20.1

Round Decimals

Round to the nearest whole number or dollar.

1. 6.9 _____

2. 7.2 _____

3. $8.32 _____

4. 9.75 _____

5. 51.2 _____

6. 5.9 _____

7. $84.65 _____

8. $5.45 _____

9. thirteen and eleven hundredths _____

10. six and ninety-five hundredths _____

11. ten and ninety-one hundredths _____

12. nine and forty-five hundredths _____

Round to the nearest tenth or ten cents.

13. 16.54 _____

14. 31.25 _____

15. $46.95 _____

16. 21.85 _____

17. $25.64 _____

18. 49.39 _____

19. $64.91 _____

20. $87.39 _____

Mixed Review

Find the sum.

21. $4.29 + 7.30

22. $6.14 + 0.88

23. $2.21 + $2.21

24. $48.19 + 27.55

25. $11.94 + 36.60

Find the difference.

26. $8.79 − 0.56

27. $9.05 − 5.48

28. $7.12 − 6.81

29. $34.63 − 27.98

30. $59.99 − 5.90

31. Solve for n:
$540 \div n = 90$

_____

32. Solve for n:
$(64 - 5) + (12 \div 4) = n$

_____

Name _____

Estimate Sums and Differences

Estimate the sum or difference.

1. 1.5 + 1.2	**2.** 1.8 − 0.6	**3.** 2.3 − 0.7	**4.** 2.94 − 1.13	**5.** 23.94 +16.98
6. 4.25 − 0.86	**7.** 6.45 − 2.63	**8.** $5.62 +$2.81	**9.** 16.95 − 3.29	**10.** 45.41 −29.18
11. 1.62 − 1.34	**12.** 3.72 − 1.65	**13.** 2.36 − 1.74	**14.** 3.92 − 1.69	**15.** 3.45 + 2.07
16. 23.41 −11.20	**17.** 2.53 + 1.56	**18.** 3.04 − 1.26	**19.** 2.82 + 2.35	**20.** 4.26 − 2.39

Mixed Review

Write < or > in each ◯.

21. $8.15 +$0.37 ◯ $8.50

22. $19.00 ◯ $10.75 + $9.00

23. $6.59 +$6.59 ◯ $13.20

24. $7.43 +$6.43 ◯ $13.90

For 25–26, use the table.

25. If you rounded all of the punt air times to the nearest second, what would be the time that occurred most often?

_____

26. Estimate the difference between Charley's longest time and his shortest time.

_____

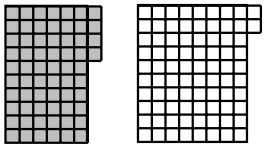
Charley's Football Punt Time in Air	
Monday	3.4 seconds
Tuesday	2.5 seconds
Wednesday	1.7 seconds
Thursday	2.8 seconds
Friday	4.2 seconds

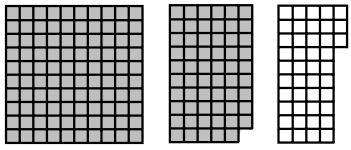
Name _____

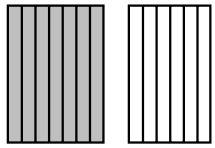
LESSON 20.3

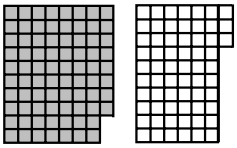
Add Decimals

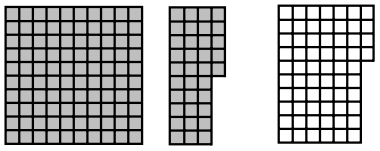
Write the letter of the model that matches each problem. Solve.

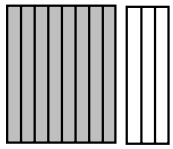
A. 

B. 

C. 

D. 

E. 

F. 

1. $1.35 + 0.64 = n$ _____

2. $0.7 + 0.6 = n$ _____

3. $0.64 + 0.82 = n$ _____

4. $1.59 + 0.43 = n$ _____

5. $0.8 + 0.3 = n$ _____

6. $0.78 + 0.63 = n$ _____

Find the sum. Estimate to check.

7. 0.6 + 0.8	**8.** 0.52 + 0.39	**9.** 0.24 + 0.36	**10.** 0.59 + 0.79	**11.** 3.72 + 5.88
12. 0.9 + 0.9	**13.** 45.91 + 12.57	**14.** 0.88 + 0.43	**15.** 31.50 + 14.68	**16.** 21.94 + 10.28

Mixed Review

17. Sally bought two packages of hamburger. One package was 2.45 pounds and the other was 3.16 pounds. How many pounds of hamburger did she buy?

_____

18. Henry wanted to buy his friend a treat. He had $3.87. If the treat cost $2.65, about how much money did he have left?

_____

19. $7 \times 7 =$ _____

20. $9 \times 2 =$ _____

21. $4 \times 8 =$ _____

Name _____

Subtract Decimals

Find the difference. Estimate to check.

1. $0.9 - 0.2$

2. $0.64 - 0.34$

3. $1.8 - 0.3$

4. $41.52 - 32.61$

5. $1.25 - 0.76$

6. $1.00 - 0.56$

7. $1.62 - 0.73$

8. $17.62 - 9.28$

9. $1.21 - 0.47$

10. $76.43 - 34.58$

11. $4.80 - 0.62$ _____

12. $5.99 - 1.03$ _____

13. $20.85 - 11.70$ _____

14. $13.39 - 12.36$ _____

For 15–18, write the missing digits.

15. $4.\_\_\_\_ - \_\_\_\_.6 = 2.7$

16. $3\_\_\_\_.5 - \_\_\_\_2.8 = 18.7$

17. $1\_\_\_\_.3 - 8.\_\_\_\_ = 6.4$

18. $\_\_\_\_9.2 - \_\_\_\_.4 = 11.8$

Mixed Review

19. What fraction is equivalent to 9.40?

_____

20. Joan's older sister is 1.65 meters tall. Joan is 1.26 meters tall. How much taller is her sister?

_____

21. $2{,}875 \times 30$

22. $7{,}891 + 9{,}415$

23. $62{,}730 - 59{,}881$

24. $14{,}962 + 29{,}037$

Name _____

LESSON 20.5

Add and Subtract Decimals

Find the sum or difference. Estimate to check.

1. 4.90 + 3.41	**2.** 5.20 − 3.45	**3.** 5.00 − 2.49	**4.** 3.50 + 4.62	**5.** 35.91 + 4.00
6. 6.90 − 3.81	**7.** 10.0 − 4.6	**8.** 2.60 + 1.75	**9.** 5.42 + 1.73	**10.** 7.18 + 2.49

11. $5.98 − $0.50 _____

12. 35.84 − 4.9 _____

13. 12 − 5.91 _____

Find the missing number.

14. 3.62 − ☐ = 1.5 _____

15. 4.96 − 1.2 = ☐ _____

16. ☐ + 0.29 = 3.81 _____

Mixed Review

17. Sylvia ran 50 meters in 9.62 seconds. Linda finished 0.35 seconds later. Ramie's time was 0.09 seconds more than Linda's. What was Linda's time? Ramie's?

_____

18. Henry bought radish, tomato, and pumpkin seed packages. The radish and tomato seed packages were $0.89 each. The pumpkin seed packages were $1.25 each. How many of each package of seeds did he buy if he spent $4.28 in all?

_____

Multiply each number by 72.

19. 4 _____

20. 64 _____

21. 349 _____

Name _____

Problem Solving Skill

Evaluate Reasonableness of Answers

1. Heidi works as a park ranger giving hiking tours. The trail is 4.3 miles long. If Heidi walks the trail 15 times each week, which is a reasonable estimate of the total number of miles she hiked?

A. Heidi hiked 100 miles

B. Heidi hiked 60 miles

2. Merrilyn is going to the market to buy produce. She needs 5 pounds of apples at $0.99 per pound and 9 pounds of green beans at $1.29 per pound. Which is a more reasonable estimate of how much money she should bring to the market?

A. $14.00

B. $32.00

Peter is reading the instructions on how to build a birdhouse. He needs to cut some pieces of wood from a piece of lumber 100 cm long. The first piece should be 38.9 cm long; the second should be 22.5 cm long. How much of the lumber will be left after he makes the two cuts?

3. Which is the best estimate for the combined length of the two cuts?

A 70 cm **C** 30 cm

B 60 cm **D** 10 cm

4. Which is the best estimate for the length of the lumber left after Peter makes the two cuts?

F 40 cm **H** 15 cm

G 20 cm **J** 10 cm

Mixed Review

5. Find the prime factors of 12.

_____

_____

6. List 3 multiples of 10.

_____

_____

7. Write the fact family for 3, 5, and 15.

_____

_____

8.
$$\begin{array}{r} 90{,}005 \\ -\ 5{,}842 \\ \hline \end{array}$$

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

10.
$$\begin{array}{r} 52 \\ \times\ 81 \\ \hline \end{array}$$

Name _____ LESSON 21.1

Choose the Appropriate Unit

Vocabulary

Complete.

1. Measuring length, width, height, and distance are all forms of _____ measurement.
2. A(n) _____ is about the length of a baseball bat.
3. A(n) _____ is about the distance you can walk in 20 minutes.
4. A(n) _____ is about the height of a cat.
5. A(n) _____ is about the length of your thumb from the first knuckle to the tip.

Choose the reasonable unit of measure. Write *in.*, *ft*, *yd*, or *mi*.

6. The length of a calculator is about 4 _____.
7. The height of a flagpole is about 25 _____.
8. The height of a refrigerator is about 2 _____.
9. The distance along the walkathon is 12 _____.

Name the greater measurement.

10. 50 ft or 50 yd _____
11. 17 mi or 17 yd _____
12. 243 in. or 243 yd _____

Mixed Review

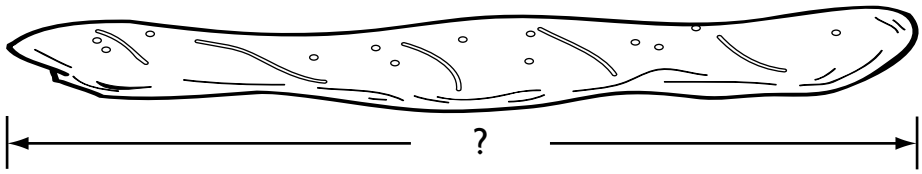
13. $\frac{1}{6} + \frac{2}{3}$ _____
14. $\frac{5}{6} + \frac{2}{3}$ _____
15. Write $\frac{10}{15}$ as a fraction in simplest form. _____

Name _____

Measure Fractional Parts

Estimate to the nearest inch. Then measure to the nearest $\frac{1}{8}$ inch.

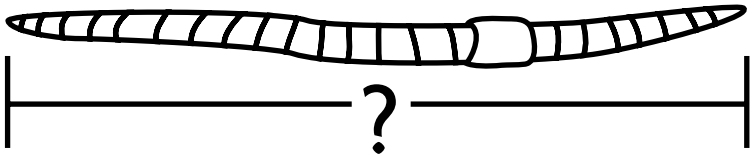
1.



_____

Estimate to the nearest inch. Then measure to the nearest $\frac{1}{4}$ inch.

2.



_____

Order the measurements from least to greatest.

3. $4\frac{1}{8}$ in.; $3\frac{1}{2}$ in.; $4\frac{1}{4}$ in.; $4\frac{3}{8}$ in.

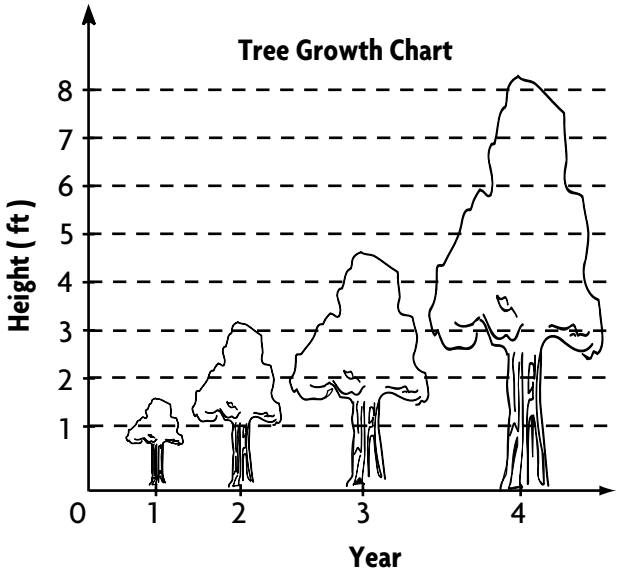
_____

4. $\frac{1}{8}$ in.; $\frac{1}{2}$ in.; $\frac{3}{4}$ in.; $\frac{5}{8}$ in.

_____

Mixed Review

For Problems 5–6, use the tree chart.



5. To the nearest foot, how tall was the tree in the first year? second year? third year? fourth year?

_____

6. Between which two years did the tree grow the most?

_____

_____

Name _____

LESSON 21.3

Algebra: Change Linear Units

Tell whether you multiply or divide. Complete.

1. 48 in. = _____ ft

_____

2. 36 ft = _____ yd

_____

3. 4 yd = _____ in.

_____

4. 3 mi = _____ ft

_____

5. 3,520 yd = _____ mi

_____

6. 5 mi = _____ ft

_____

7. 7 ft = _____ in.

_____

8. 300 ft = _____ yd

_____

9. 432 in. = _____ yd

_____

Write an equation that can be used to complete each table.
Complete the table.

10.

Feet, *f*	3	6		12	15
Yards, *y*	1		3		5

_____

11.

Yards, *y*	1,760		
Miles, *m*	1	3	4

_____

Compare. Write $<$, $>$, or $=$ in the ◯.

12. 38 in. ◯ 3 ft

13. 10,000 ft ◯ 4 mi

14. 100 in ◯ 3 yd

Mixed Review

Add or Subtract.

15. 5,283 + 467

16. 3,512 − 468

17. 7,536 − 207

18. 4,106 − 314

19. 5,490 − 83

20. 6,372 + 891

21. 7,536 + 18

22. 2,013 − 5

Name _____

Capacity

Vocabulary

Complete.

1. _____ is the amount a container can hold when filled.

2. Use the words *cup, pint, quart, gallon* to label each capacity.

_____ _____ _____ _____

Complete the tables. Change the units.

3.

Cup	Pint
4	
8	
	8

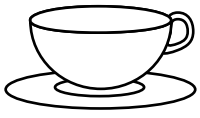
4.

Pint	Quart
4	
	3
8	

5.

Quart	Gallon
8	
12	
	4

Choose the capacity. Write *cup, pint, quart,* or *gallon.*

6. 

_____

7. 

_____

8. 

_____

Mixed Review

Round the number to the greatest place value.

9. 3,654 _____

10. 4,399 _____

11. 2,543 _____

12. 17,536 _____

13. 213,502 _____

14. 109,563 _____

Name _____ LESSON 21.5

Weight

Vocabulary

Complete.

1. A bread truck weighs about 1 _____.

2. A slice of bread weighs about 1 _____.

3. A loaf of bread weighs about 1 _____.

Circle the more reasonable measurement.

4. 1,200 lb or 1,200 oz **5.** 10 T or 10 lb **6.** 68 oz or 68 lb

Change the unit.

7. 2 lb = _____ oz **8.** 4 T = _____ lb **9.** 60,000 lb = _____ T

10. 64 oz = _____ lb **11.** 1 T = _____ oz **12.** 208 oz = _____ lb

Write *3 lb, 5,000 lb, 1,000 lb,* or *35 oz* to make each equality or inequality true.

13. 3 lb > _____ **14.** 2T < _____

15. 5 lb < _____ **16.** 17 lb > _____

Mixed Review

Write the product or quotient.

17. $6 \times 3 =$ _____ **18.** $10 \times 3 =$ _____ **19.** $6 \times 5 =$ _____

20. $35 \div 7 =$ _____ **21.** $7 \times 6 =$ _____ **22.** $18 \div 3 =$ _____

23. $7 \times 8 =$ _____ **24.** $36 \div 6 =$ _____ **25.** $8 \times 11 =$ _____

Name _____

Problem Solving Strategy

Compare Strategies

Draw a picture or make a table to solve.

1. Sarah is making a large pot of soup. She adds 7 quarts of water and 3 pints of tomato juice. How many one-pint servings can be made?

_____

2. Cherie's town is bagging aluminum cans for recycling. Each bag holds 5 pound of cans. They need to collect 2 tons of cans before their donation will be accepted. How many bags of cans will they need?

_____

3. Roland is buying sod for some patches on his lawn. Each patch needs 4 feet of sod. He buys 5 yards of sod. How many patches can he cover?

_____

4. Karla is making tea for some friends. Each cup of tea uses 1 cup of water. Karla fills a 3-quart pitcher with water. How many teacups can she fill?

_____

5. Along the 30-foot wall, there is a plant every 6 feet. The plants start at one end of the wall. How many plants are there?

_____

6. Henry collected 10 cans in the first hour, 15 cans the second hour, and 20 cans the third hour. If this pattern continues, how many cans will he collect in all in six hours?

_____

Mixed Review

Write the product or sum.

7. 314 × 4	**8.** 236 × 3	**9.** 413 + 37	**10.** 207 × 4	**11.** 535 + 493
12. 537 + 395	**13.** 537 × 5	**14.** 716 + 239	**15.** 716 × 9	**16.** 375 + 909

Name _____ LESSON 22.1

Linear Measure

Vocabulary

Complete.

1. A(n) _____ is about the width of your index finger.

2. A(n) _____ is equal to 10 centimeters and is about the width of an adult's hand.

3. A(n) _____ is about the distance from one hand to the other when you stretch out your arms.

4. A(n) _____ is about the length of 10 football fields.

Use a centimeter ruler or a meterstick to measure each item.
Write the measurement and unit of measure you used.

5. length of your desk _____

6. width of a piece of chalk _____

7. height of a tree _____

Choose the most reasonable measurement. Write *a, b,* or *c*.

8. _____	width of a head	a. 2 km	b. 2 dm	c. 2 m
9. _____	distance around the school	a. 1,000 cm	b. 1,000 km	c. 1,000 m
10. _____	height of a tree	a. 5 km	b. 5 dm	c. 5 m
11. _____	distance between two towns	a. 22 km	b. 22 dm	c. 22 m

Mixed Review

12. $\begin{array}{r} 15 \\ \times\ 10 \\ \hline \end{array}$

13. $\begin{array}{r} 1{,}000 \\ \times\ \ 12 \\ \hline \end{array}$

14. $\begin{array}{r} 14.3 \\ -\ 7.6 \\ \hline \end{array}$

15. $\begin{array}{r} 13.4 \\ +\ 16.6 \\ \hline \end{array}$

16. $350 \times n = 35{,}000 \quad n =$ _____

17. $n \times 36 = 360 \quad n =$ _____

Name _____

LESSON 22.2

Algebra: Change Linear Units

Complete.

1. 300 cm = _____ m
2. 3 km = _____ m
3. 4,000 m = _____ km
4. 50 m = _____ dm
5. 40 km = _____ m
6. 68 cm = _____ m

Write the correct unit.

7. 500 cm = _____ m
8. 60 dm = _____ m
9. 8 _____ = 8,000 m
10. 20 cm = _____ dm
11. 3,000 m = 3 _____
12. 200 m = _____ cm

Compare. Write >, <, or =.

13. 12 m _____ cm
14. 14 m _____ 140 cm
15. 3 km _____ 4,000 m
16. 300 m _____ 3,000 dm
17. 30 dm _____ 3 m
18. 4 m _____ 3 km

Order from least to greatest.

19. 2m; 100 cm; 4 dm; 3 km

_____

20. 3,000 m; 3 dm; 300 km; 3,000 cm

_____

Mixed Review

21. Which customary unit of length would be best used to give the distance across a soccer field?

_____

22. Write an expression for 3 times the number of people, p, at the county fair.

_____

23. $\begin{array}{r} 84 \\ \times\ 62 \\ \hline \end{array}$

24. $\begin{array}{r} 48{,}588 \\ -\ 40{,}315 \\ \hline \end{array}$

25. $\begin{array}{r} 315 \\ \times\ 27 \\ \hline \end{array}$

26. $4\overline{)3{,}788}$

27. $6\overline{)973}$

28. $8\overline{)5{,}800}$

29. $12\overline{)144}$

30. $4\overline{)3604}$

Name _____ LESSON 22.3

Capacity

Vocabulary

Complete.

1. A _____ is about the size of a sports-drink bottle. It contains 1,000 milliliters.

2. A _____ is about the size of a drop of liquid in an eyedropper.

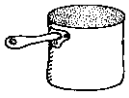
Choose the more reasonable unit of measure. Write *mL* or *L*.

3. wading pool _____

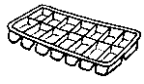
4. a soda can _____

5. a baby bottle _____

Choose the best estimate. Write *a, b,* or *c*.

6. 

a. 3mL **b.** 30mL **c.** 3L _____

7. 

a. 42mL **b.** 420mL **c.** 42L _____

8. 

a. 62mL **b.** 620mL **c.** 62L _____

Change to milliliters.

9. 5 L = _____ mL

10. 70 L = _____ mL

11. 4 L = _____ mL

Order from greatest to least.

12. 30 L; 30 mL; 300 L _____

13. 5,000 mL; 4 L; 30 mL; 20 L _____

Mixed Review

14. Ron's car has a 12-gallon gas tank. If gas costs $1.45 per gallon, how much will it cost to fill the tank? _____

15. A 5-lb bag of flour costs $1.10. A 20-oz bag of flour costs $0.40. Which is the better buy? _____

16. 5 km = _____ m

17. 71 cm = _____ m

18. 98 m = _____ dm

Name _____

LESSON 22.4

Mass

Vocabulary

Write the letter of the word that is best described.

1. _____ the amount of mass that is about equal to a baseball bat
2. _____ the amount of matter in an object
3. _____ the amount of mass that is about equal to a large paper clip

a. kilogram (kg)

b. gram (g)

c. mass

Choose the more reasonable measurement.

4. 

1 g or 1 kg

_____

5. 

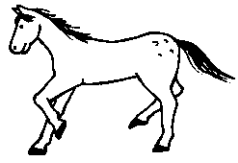
5 g or 5 kg

_____

6. 

200 g or 20 kg

_____

7. 

600 g or 600 kg

_____

Change to grams.

8. 3 kg = _____ g

9. 14 kg = _____ g

10. 20 kg = _____ g

Mixed Review

11. One serving of macaroni and cheese is 70 g. How many kilograms are needed to serve 200 people?

_____

12. If 3 servings of macaroni and cheese cost $0.99, how much will it cost to serve 200 people?

_____

13. $72\overline{)4{,}216}$

14. $19\overline{)103}$

15. $10\overline{)20{,}000}$

16. $24\overline{)1920}$

Name _____

LESSON 22.5

Problem Solving Strategy

Draw a Diagram

Draw a diagram to solve.

1. Steve and Sara bought a total of 14 items at the grocery store. Sara bought two more than twice the number of items that Steve bought. How many items did each buy?

_____

_____

_____

2. Mike, Mia, and Emily were reading library books. Mike read 4 books. Mia read 2 more than twice the number of books that Emily read. Emily read 1 book less than Mike. How many books did each person read?

_____

_____

_____

3. Tina, Kevin and Todd flew their kites. Kevin's kite flew 2 meters higher than Todd's. Tina's flew 1 meter lower than half as high as Todd's. Todd's kite flew 300 decimeters high. How high did Tina's and Kevin's kites fly?

_____

_____

_____

4. Jim's family went hiking. Jim was able to hike 5 miles. His Mom and Dad each hiked 1 mile more than three times the distance that Jim hiked. Jim's brother Tim hiked 1 mile less than Jim did. How far did each person hike?

_____

_____

_____

Mixed Review

5. 300 m = _____ cm

6. 400 dm = _____ m

7. 7,000 m = _____ km

8. 20 ft = _____ in

9. 4 lb = _____ oz

10. 1 pt = _____ c

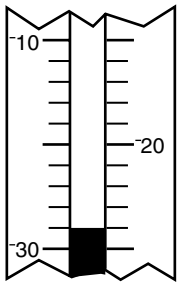
Name _____

LESSON 23.1

Temperature: Fahrenheit

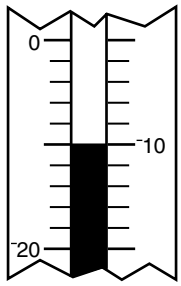
Use the thermometer to find the temperature.

1.



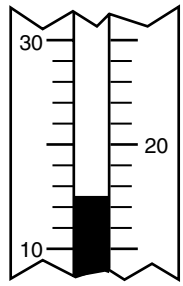
_____

2.



_____

3.



_____

For 4–7, use a thermometer to find the change in temperature.

4. 0°F and 35°F

_____

5. $^{-}$10°F and 10°F

_____

6. $^{-}$5°F and 25°F

_____

7. $^{-}$15°F and 30°F

_____

Circle the temperature that is a better estimate.

8. A pot of boiling tomato sauce

10°F or 210°F

9. A summer day in Florida

30°F or 100°F

10. An air-conditioned office building

65°F or 150°F

Mixed Review

11. Find n:
$n \div 30 = 20$

_____

12. Find n:
$(25 + 5) - (10 \div 2) = n$

_____

13. $\begin{array}{r} 37.4 \\ +\ 12.9 \\ \hline \end{array}$

14. $\begin{array}{r} 72.8 \\ +\ 15.2 \\ \hline \end{array}$

15. $\begin{array}{r} 27.4 \\ -\ 18.6 \\ \hline \end{array}$

16. $\begin{array}{r} 29.9 \\ -\ 11.9 \\ \hline \end{array}$

17. $\begin{array}{r} 92.4 \\ -\ 75.5 \\ \hline \end{array}$

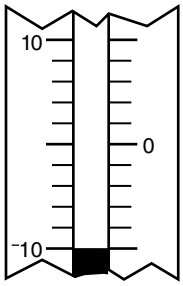
Name _____

LESSON 23.2

Temperature: Celsius

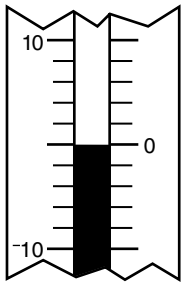
Use the thermometers to find the temperature.

1.



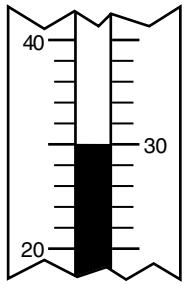
_____

2.



_____

3.



_____

For 4–7, use a thermometer to find the change in temperature.

4. 67°C and ⁻55 °C

_____

5. 48°C and ⁻10°C

_____

6. ⁻1°C and 50°C

_____

7. ⁻15°C and 22°C

_____

Circle the temperature that is a better estimate.

8. The ice at the ice rink

⁻1°C or 65°C

9. Hot water in the tea kettle

30°C or 100°C

10. A nice day for a picnic

15°C or 80°C

Mixed Review

11. What is the difference in temperature in degrees Fahrenheit between the boiling point and freezing point of water?

_____

12. How are these odd numbers alike? 5, 11, 17, 19, 23

_____

13. $25\overline{)17{,}650}$

14. $22\overline{)12{,}056}$

15. $17\overline{)4{,}952}$

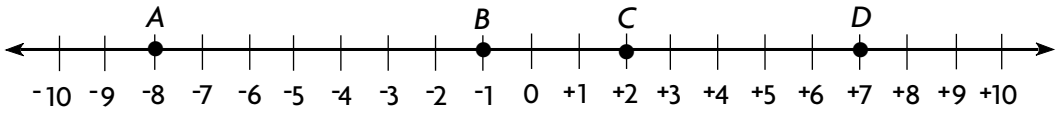
16. $29\overline{)511{,}607}$

Name _____

LESSON 23.3

Negative Numbers

Use the number line to name the number each letter represents.



1. A = _____ **2.** B = _____ **3.** C = _____ **4.** D = _____

Compare. Write < or > in each ◯.

5. $^{-}8$ ◯ $^{+}2$ **6.** $^{+}8$ ◯ $^{+}2$ **7.** 0 ◯ $^{+}2$ **8.** $^{-}2$ ◯ $^{+}2$

9. $^{+}9$ ◯ $^{+}2$ **10.** $^{+}1$ ◯ $^{+}8$ **11.** 0 ◯ $^{-}1$ **12.** $^{-}2$ ◯ $^{+}10$

Order the integers from least to greastest.

13. 0, $^{-}2$, $^{-}10$, $^{-}5$

_____

14. 0, $^{-}2$, $^{+}10$, $^{+}5$

_____

15. $^{-}2$, $^{-}8$, $^{-}10$, $^{-}7$

_____

16. $^{-}1$, $^{+}2$, $^{+}3$, $^{+}6$

_____

Mixed Review

17. List the factors of 18.

_____

18. 36 × 100

_____

19. What is the difference in temperature between $^{-}8°$ and 8°?

_____

20. Which of these numbers are composite numbers: 25, 31, 54, 79?

_____

Name _____

LESSON 23.4

Problem Solving Skill

Make Generalizations

Use the heat index table to answer the following questions. The heat index is the temperature it feels like, not the actual temperature.

Heat Index Table

Relative Humidity	Air Temperature (°F)			
	75	80	85	90
70%	78	86	94	107
80%	79	87	98	114
90%	80	89	103	113

1. Find the heat index for an air temperature of 90°F with a relative humidity of 70%.

_____

2. What would be the relative humidity if it is 85°F but feels like 98°F out?

_____

3. What would the air temperature be when the relative humidity is 90% and it feels like 80°?

_____

4. Joe wants to take a walk. There is 60% relative humidity and the air temperature is $^{-}32$°C. Will he feel warmer or cooler than the air temperature? Explain.

_____

_____

5. What generalizations can you make about the temperature that is read on the thermometer and the temperature you actually feel?

_____

_____

Mixed Review

Compare.

6. 7×9 ◯ $126 \div 2$

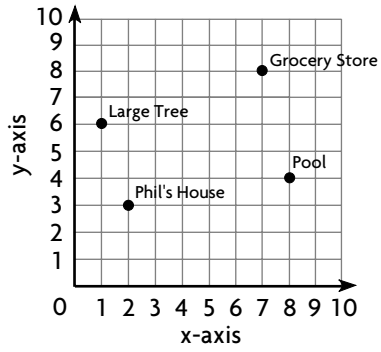
7. $^{-}7$ ◯ $^{+}5$

8. 3.45 ◯ 3.045

Name _____

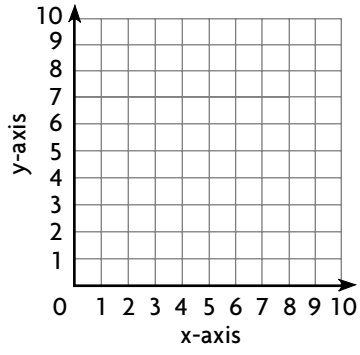
Use a Coordinate Grid

Write the ordered pair for each object on the map.



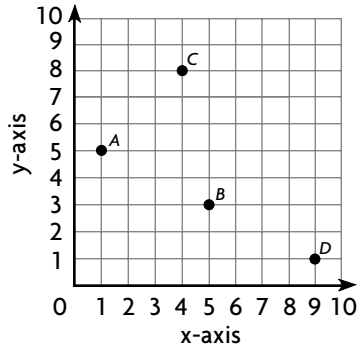
1. pool _____
2. Phil's house _____
3. grocery store _____
4. large tree _____

Plot each ordered pair on the coordinate grid.



5. (1, 1)
6. (5, 4)
7. (8, 3)
8. (9, 9)
9. (8, 7)
10. (4, 6)
11. (3, 5)
12. (2, 7)

Write the ordered pair for each point on the coordinate grid.



13. point A _____
14. point B _____
15. point C _____
16. point D _____

Mixed Review

Round each factor. Estimate the product.

17. $24 \times 81 =$ _____
18. $36 \times 52 =$ _____
19. $88 \times 11 =$ _____
20. $45 \times 219 =$ _____
21. $19 \times 283 =$ _____
22. $72 \times 72 =$ _____
23. $39 \times 158 =$ _____
24. $18 \times 18 =$ _____

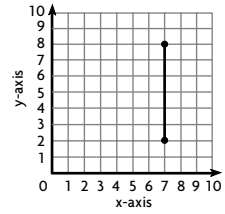
Name _____

LESSON 24.2

Length on the Coordinate Grid

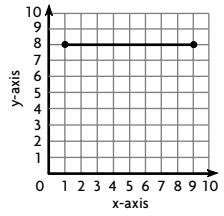
Find the length of each line segment.

1.



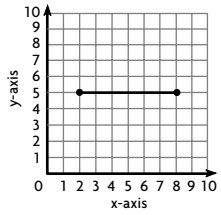
_____

2.



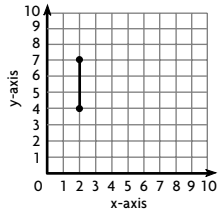
_____

3.



_____

4.



_____

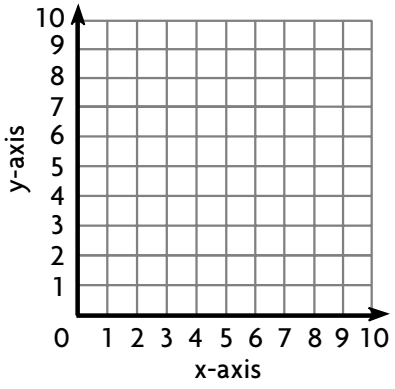
Graph the ordered pairs and connect them. Then, find the length of each line segment.

5. (3, 9), (5, 9) _____

6. (4, 3), (4, 6) _____

7. (4, 5), (8, 5) _____

8. (7, 1), (7, 6) _____



Mixed Review

Multiply.

9.	467 × 34	**10.**	313 × 65	**11.**	573 × 57	**12.**	78 × 35	**13.**	743 × 39

Circle the numbers that are divisible by 2. Underline the numbers that are divisible by 5.

14. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25

Name _____

LESSON 24.3

Use an Equation

Do the values given make $y = 2x + 18$ true?
Write *yes* or *no*.

1. (1,20) _____
2. (2,22) _____
3. (3,24) _____
4. (7,24) _____
5. (6,28) _____
6. (4,26) _____
7. (9,36) _____
8. (11,30) _____
9. (5,28) _____
10. (3,22) _____
11. (8,32) _____
12. (10,38) _____

Use the equation to complete each function table.

13. $y = 4x + 2$

Input	*x*	2	4	6
Output	*y*			

14. $y = (x + 1) - 1$

Input	*x*	1	2	3
Output	*y*			

15. $y = 2x + 5$

Input	*x*	3	6	9
Output	*y*			

16. $y = 3x + 22$

Input	*x*	1	2	3
Output	*y*			

17. $y = 9x + 1$

Input	*x*	1	4	7
Output	*y*			

18. $y = (x + 2) + 2$

Input	*x*	0	6	12
Output	*y*			

19. $y = (x - 1) + 2$

Input	*x*	1	5	9
Output	*y*			

20. $y = 3x + 14$

Input	*x*	2	4	6
Output	*y*			

21. $y = 8x + 6$

Input	*x*	1	2	3
Output	*y*			

Mixed Review

Add.

22. $\begin{array}{r} 345 \\ +\ 456 \\ \hline \end{array}$
23. $\begin{array}{r} 3{,}657 \\ +\ 1{,}737 \\ \hline \end{array}$
24. $\begin{array}{r} 7{,}324 \\ +\ 1{,}587 \\ \hline \end{array}$
25. $\begin{array}{r} 3{,}542 \\ +\ 8{,}732 \\ \hline \end{array}$
26. $\begin{array}{r} 21{,}347 \\ +\ 3{,}547 \\ \hline \end{array}$
27. $\begin{array}{r} 13{,}216 \\ +\ 543 \\ \hline \end{array}$
28. $\begin{array}{r} 5{,}542 \\ +\ 5{,}842 \\ \hline \end{array}$
29. $\begin{array}{r} 3{,}211 \\ +\ 6{,}544 \\ \hline \end{array}$
30. $\begin{array}{r} 7{,}437 \\ +\ 8{,}472 \\ \hline \end{array}$
31. $\begin{array}{r} 9{,}813 \\ +\ 7{,}134 \\ \hline \end{array}$

Name _____

LESSON 24.4

Graph an Equation

For 1–3, use the equation $y = x + 4$.

1. Complete this function table.

Input	*x*	1	2	3	4	5	6	7	8	9	10
Output	*y*										

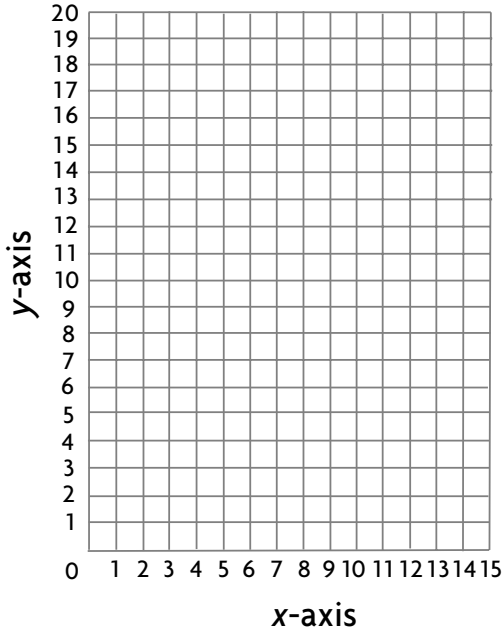
2. Write the input/output values as ordered pairs (x, y).

_____

_____

_____

3. Graph the ordered pairs on a coordinate grid.



Make a function table. Write the input/output values as ordered pairs using the values 1 through 10 for *x*. Then graph the ordered pairs on the coordinate grid above.

4. $y = 2x$

Input	*x*	1	2	3	4	5	6	7	8	9	10
Output	*y*										

_____

_____

Mixed Review

Solve.

5. $9\overline{)3{,}663}$

6. $25\overline{)10{,}150}$

7. $76\overline{)6{,}764}$

Name _____

Problem Solving Skill

Identify Relationships

For 1–3, use the function tables.

1. Describe the relationship between x and y.

_____

_____

Input	*x*	1	2	3	4	5
Output	*y*	2	4	6	8	10

2. Describe the relationship between x and y.

_____

_____

Input	*x*	1	2	3	4	5
Output	*y*	2	3	4	5	6

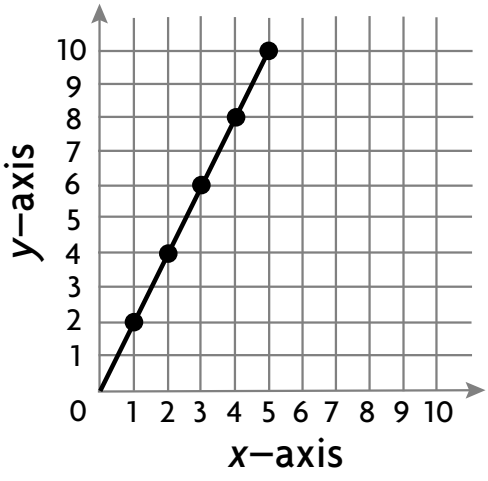
3. Describe the relationship between x and y.

_____

_____

Input	*x*	1	2	3	4	5
Output	*y*	4	8	12	16	20

For 4–5, use the graph to the right.



4. What is the relationship between the x and y values?

_____

_____

5. What is the value of y when x = 16?

_____

Mixed Review

Order from least to greatest.

6. $\frac{1}{2}$, $\frac{2}{3}$, $\frac{1}{6}$ _____

7. $\frac{3}{8}$, $\frac{3}{4}$, $\frac{3}{10}$ _____

8. $\frac{7}{9}$, $\frac{2}{3}$, $\frac{6}{6}$ _____

Name _____ LESSON 25.1

Lines, Rays, and Angles

Vocabulary

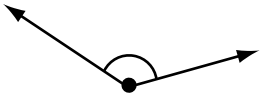
Fill in the blanks.

1. A _____ is part of a line and has one endpoint.
2. When two rays have the same endpoint, they form an _____.
3. A _____ angle forms a square corner.
4. An _____ angle is *less than* the measure of a right angle.
5. An _____ angle is *greater than* the measure of a right angle.

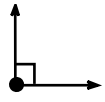
Draw and label an example of each.

6. Point D
7. line MN
8. ray DE

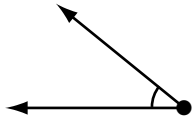
What kind of angle is each? Write *right, acute,* or *obtuse*.



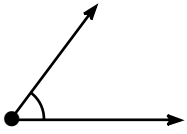
9. _____



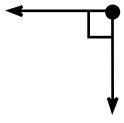
10. _____



11. _____



12. _____



13. _____

14. _____

Mixed Review

15. $\begin{array}{r} .49 \\ +\ .13 \\ \hline \end{array}$

16. $\begin{array}{r} .76 \\ -\ .58 \\ \hline \end{array}$

17. $\begin{array}{r} .92 \\ -\ .04 \\ \hline \end{array}$

18. $\begin{array}{r} .63 \\ +\ .29 \\ \hline \end{array}$

19. .50 is ____ of a whole

20. .25 is ____ of a whole

21. .40 is ____ of a whole

Name _____

LESSON 25.2

Line Relationships

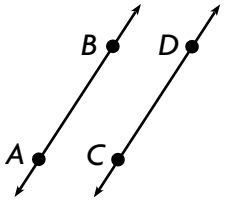
Vocabulary

Fill in the blanks.

1. _____ lines are lines that cross each other.

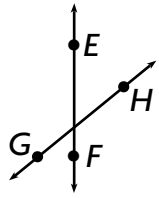
2. _____ lines intersect to form four right angles.

Name the line relationship you see in each figure. Write *intersecting, parallel,* or *perpendicular* lines.

3. 

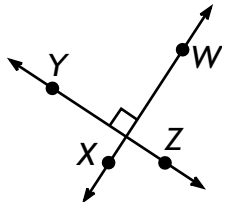
_____

_____

4. 

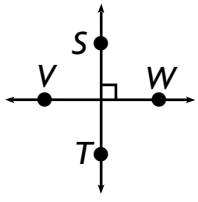
_____

_____

5. 

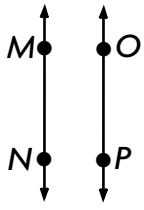
_____

_____

6. 

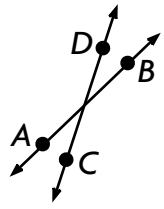
_____

_____

7. 

_____

_____

8. 

_____

_____

Mixed Review

9. $4\overline{)22}$

10. $7\overline{)50}$

11. $9\overline{)14}$

12. $2\overline{)75}$

13. $\begin{array}{r} 17 \\ \times\ 15 \\ \hline \end{array}$

14. $\begin{array}{r} 2.59 \\ \times\ \ 5 \\ \hline \end{array}$

15. $\begin{array}{r} 78 \\ \times\ \ 9 \\ \hline \end{array}$

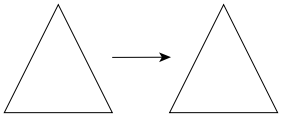
16. $\begin{array}{r} 3.61 \\ \times\ 20 \\ \hline \end{array}$

Name _____

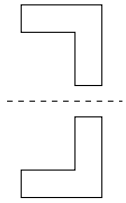
LESSON 25.3

Congruent Figures and Motion

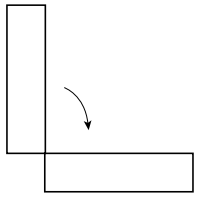
Tell how each figure was moved. Write *slide, flip,* or *turn*.

1. 

_____

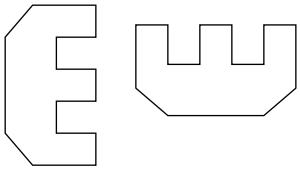
2. 

_____

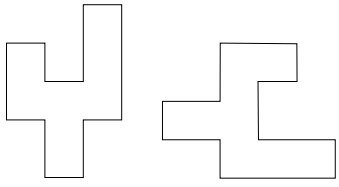
3. 

_____

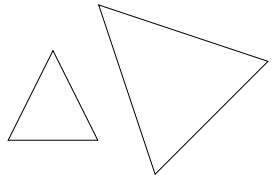
Tell whether the two figures are *congruent*, *similar*, or *neither*.

4. 

_____

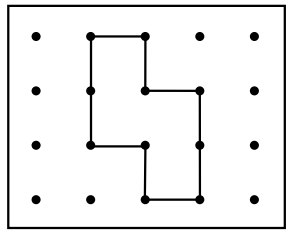
5. 

_____

6. 

_____

7. Copy this figure on dot paper. Then draw figures to show a slide, a flip, and a turn.



Mixed Review

Add or Subtract.

8. $\frac{9}{10} + \frac{4}{10} =$ ____

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

10. $\frac{3}{6} - \frac{2}{6} =$ ____

11. $\frac{5}{8} - \frac{4}{8} =$ ____

12. $\frac{9}{14} - \frac{3}{14} =$ ____

13. $\frac{4}{7} - \frac{1}{7} =$ ____

14. $\frac{6}{9} + \frac{2}{9} =$ ____

15. $\frac{3}{5} + \frac{1}{5} =$ ____

16. $\frac{4}{12} + \frac{6}{12} =$ ____

17.
738
389
388
+ 296

18.
199
309
374
+ 902

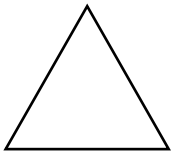
19.
422
688
201
+ 114

20.
237
640
888
+ 315

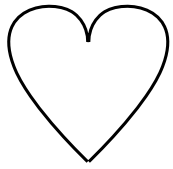
Name _____

Symmetric Figures

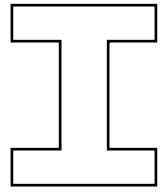
Tell whether the figure has *rotational symmetry, line symmetry,* or *both*.

1. 

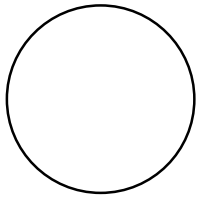
_____

2. 

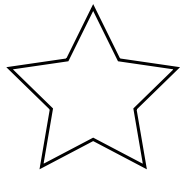
_____

3. 

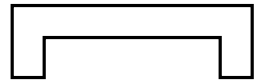
_____

4. 

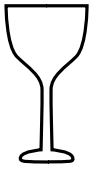
_____

5. 

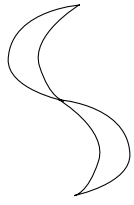
_____

6. 

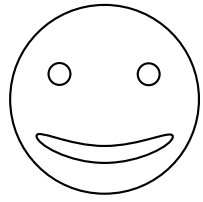
_____

7. 

_____

8. 

_____

9. 

_____

Mixed Review

Write each number in expanded form.

10. 5,654 = _____ + _____ + _____ + _____

11. 9,232 = _____ + _____ + _____ + _____

12. 138,045 = _____ + _____ + _____ + _____ + _____

13. 87,657 = _____ + _____ + _____ + _____ + _____

Solve.

14. $(7 \times 6) \div 2 =$ _____ **15.** $(13 - 8) \times 9 =$ _____ **16.** $6 + (12 \div 2) =$ _____

17. $\begin{array}{r} 7{,}614 \\ +\ 8{,}093 \\ \hline \end{array}$ **18.** $\begin{array}{r} 21{,}355 \\ -\ 9{,}787 \\ \hline \end{array}$ **19.** $\begin{array}{r} 3{,}630 \\ \times\ \ 41 \\ \hline \end{array}$ **20.** $\begin{array}{r} 2{,}498 \\ \times\ \ 15 \\ \hline \end{array}$

Name _____

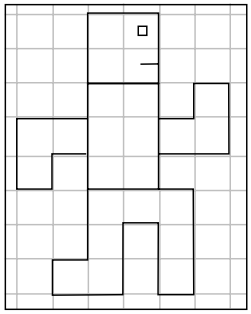
LESSON 25.5

Problem Solving Strategy

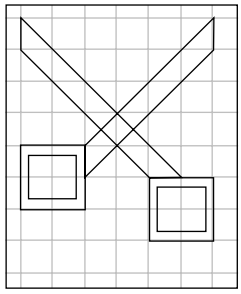
Make a Model

Use *make a model* to solve.

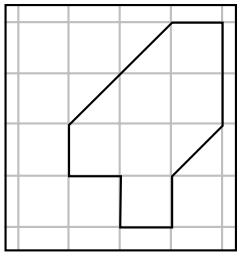
1. Laura wants to make the figure below larger and then put it on her folder. Use 1-inch grid paper to help Laura make a larger picture.



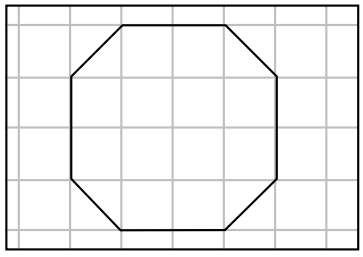
2. Wesley wants to decorate a bulletin board in his school hallway. He wants to make a larger picture of the figure below. Use 1-inch grid paper to help Wesley make the picture larger.



3. Make a smaller picture of the figure below. Use $\frac{1}{2}$ cm grid paper to help you make a smaller picture.



4. Make a larger picture of the figure below. Use 1-inch grid paper to help you.



Mixed Review

Add or Subtract.

5. $\$5.89 + 7.82$

6. $54.68 + 92.30$

7. $108.60 - 87.01$

8. $17.92 + 45.67$

9. $9.07 - 4.88$

10. $8.00 + 7.45$

11. $34.59 - 28.99$

12. $63.78 + 87.19$

13. $64.48 - 17.14$

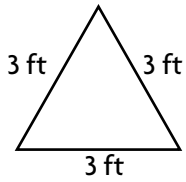
Name _____

LESSON 26.1

Perimeter of Polygons

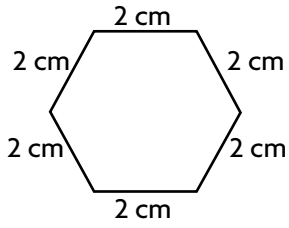
Find the perimeter.

1.



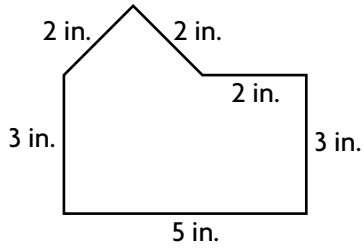
_____

2.



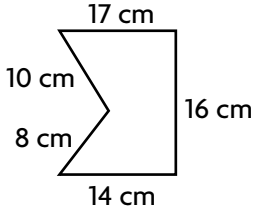
_____

3.



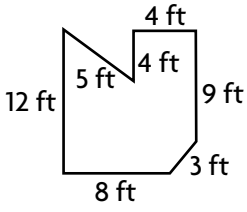
_____

4.



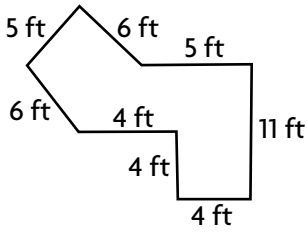
_____

5.



_____

6.



_____

Mixed Review

Add.

7. 673 + 360	**8.** 587 + 546	**9.** 129 + 56	**10.** 412 + 108	**11.** 1,481 + 289
12. 17 14 12 + 15	**13.** 22 19 21 + 27	**14.** 16 19 19 + 5	**15.** 75 53 52 + 61	**16.** 28 28 92 + 92

Subtract.

17. 871 − 323	**18.** 165 − 84	**19.** 284 − 189	**20.** 831 − 428	**21.** 2,179 − 871

22. $\frac{4}{5} - \frac{2}{10} =$ _____ **23.** $\frac{11}{12} - \frac{3}{4} =$ _____ **24.** $\frac{9}{15} - \frac{1}{5} =$ _____

Name _____

LESSON 26.2

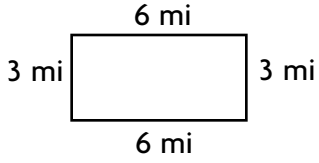
Estimate and Find Perimeter

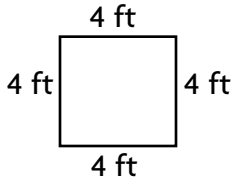
Vocabulary

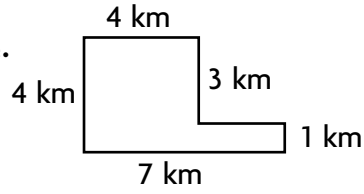
Fill in the blank to complete the sentence.

1. _____ is the distance around a polygon.

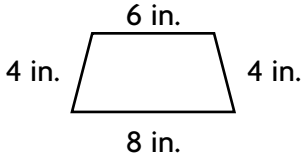
Use a formula to find the perimeter.

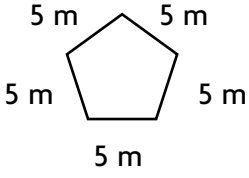
2. 

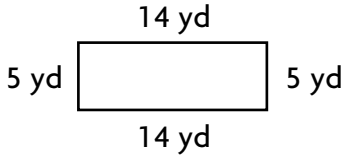
3. 

4. 

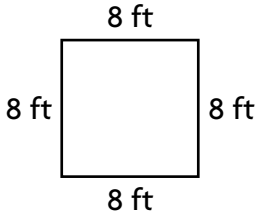
_____ _____ _____

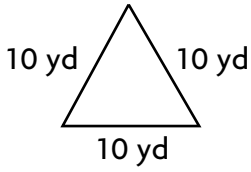
5. 

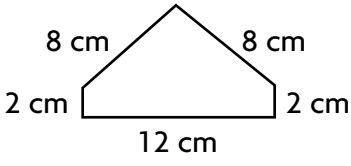
6. 

7. 

_____ _____ _____

8. 

9. 

10. 

_____ _____ _____

Mixed Review

Solve.

11. $\frac{3}{9} + \frac{2}{9} =$ _____

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

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

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

15. $20\overline{)0.793}$

16. $19\overline{)1,862}$

17. $48\overline{)4,376,111}$

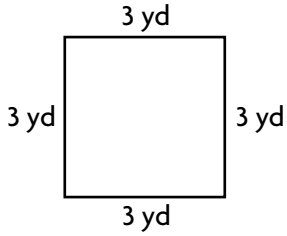
18. $17\overline{)3,727}$

Name _____

Estimate and Find Area

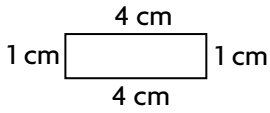
Find the area.

1.



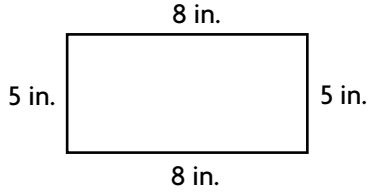
_____

2.



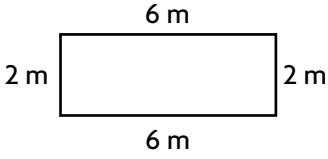
_____

3.



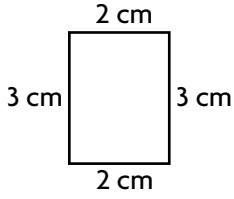
_____

4.



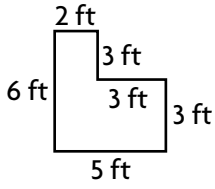
_____

5.



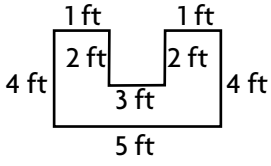
_____

6.



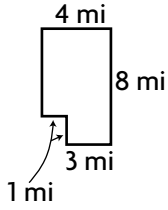
_____

7.



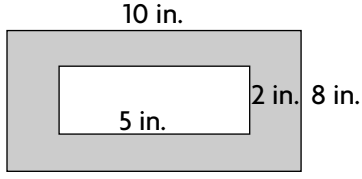
_____

8.



_____

9.



_____

Mixed Review

Solve.

10. $\begin{array}{r} 67 \\ \times\ 16 \\ \hline \end{array}$	**11.** $\begin{array}{r} 627 \\ \times\ 41 \\ \hline \end{array}$	**12.** $\begin{array}{r} 129 \\ \times\ 76 \\ \hline \end{array}$	**13.** $\begin{array}{r} 492 \\ \times\ 10 \\ \hline \end{array}$	**14.** $\begin{array}{r} 412 \\ \times\ 89 \\ \hline \end{array}$
15. $\begin{array}{r} 871 \\ \times\ 13 \\ \hline \end{array}$	**16.** $\begin{array}{r} 165 \\ \times\ 64 \\ \hline \end{array}$	**17.** $\begin{array}{r} 52 \\ \times\ 37 \\ \hline \end{array}$	**18.** $\begin{array}{r} 69 \\ \times\ 28 \\ \hline \end{array}$	**19.** $\begin{array}{r} 955 \\ \times\ 31 \\ \hline \end{array}$

20. $(7 \times 3) - (4 \times 4) =$ _____

21. $(12 \times 3) - 15 =$ _____

22. $(19 + 28) - (8 \times 2) =$ _____

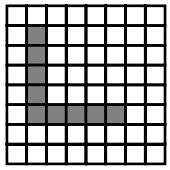
23. $(17 - 7) + (28 + 3) + (5 \times 5) =$ _____

Name _____

LESSON 26.4

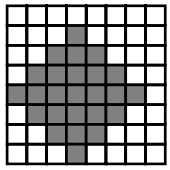
Relate Area and Perimeter

Write the area and the perimeter.

1. 

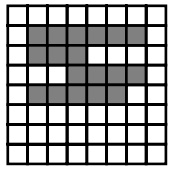
_____

_____

2. 

_____

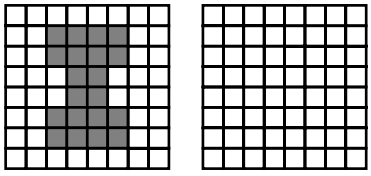
_____

3. 

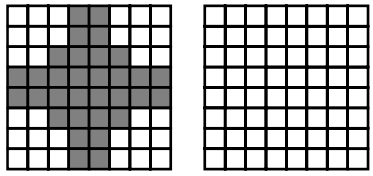
_____

_____

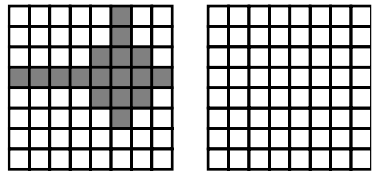
For 4–6, find the area and perimeter of each figure. Then draw another figure that has the same area but a different perimeter.

4. 

_____

5. 

_____

6. 

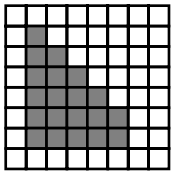
_____

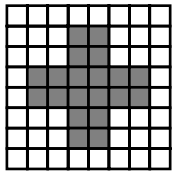
7. Which of the figures below have the same area but different perimeters?

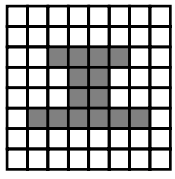
_____

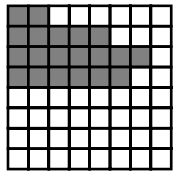
8. Which of the figures below have the same perimeter but different areas?

_____

a. 

b. 

c. 

d. 

Mixed Review

Solve.

9. $7\frac{1}{2} + 3\frac{9}{12} =$ _____

10. $4\frac{4}{9} - 1\frac{1}{5} =$ _____

11. $10\frac{6}{7} - 5\frac{2}{14} =$ _____

Circle the prime numbers.

9. 17 33 39 5 142 29 47 30 111 13 52 56 11

Name _____

Relate Formulas and Rules

Complete for each rectangle.

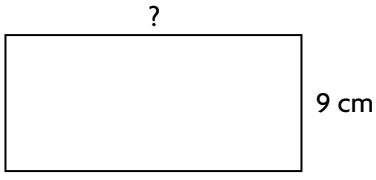
1. Area = 20 sq in.
Length = 4 in.
Width = _____

2. Area = 64 sq mi
Length = 4 mi
Width = _____

3. Area = 100 sq m
Width = 4 m
Length = _____

Find the unknown measurement.

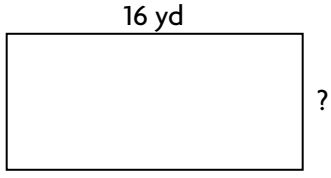
4.



Area = 108 sq cm

_____

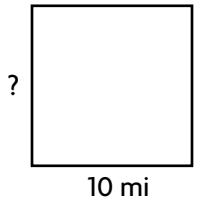
5.



Area = 80 sq yd

_____

6.



Area = 100 sq mi

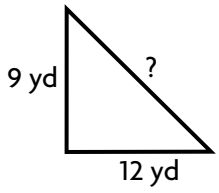
_____

7.

Perimeter = 18 ft

_____

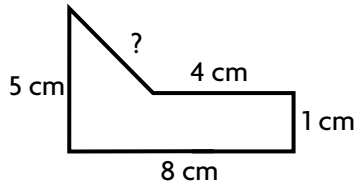
8.



Perimeter = 36 yd

_____

9.



Perimeter = 24 cm

_____

Mixed Review

Divide.

10. $8\overline{)96}$ **11.** $3\overline{)42}$ **12.** $5\overline{)90}$ **13.** $9\overline{)207}$ **14.** $2\overline{)58}$

15. $12\overline{)300}$ **16.** $18\overline{)144}$ **17.** $6\overline{)246}$ **18.** $11\overline{)231}$ **19.** $18\overline{)270}$

Name _____ LESSON 26.6

Problem Solving Strategy

Find a Pattern

Use *find a pattern* to solve.

1. Alexis is going to put carpet in three of the rooms in her house. How much more does the area of the rooms increase if each room is two times as long and three times as wide as the one before it? Make a table to show how the areas change. Then solve.

   Room 1: L = 4 yd, W = 2 yd

   Room 2: L = 8 yd, W = 6 yd

   Room 3: L = 16 yd, W = 18 yd

2. Douglas has different size picture frames. How does the perimeter change for each of his picture frames when the width increases by 5 inches? Complete the table and solve.

Picture Frame Sizes			
	Length (in.)	Width (in.)	Perimeter (in.)
Frame A	12	10	
Frame B	12	15	
Frame C	12	20	
Frame D	12	25	

Mixed Review

3. $15 \times 7 =$ _____

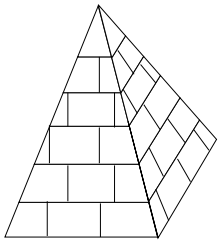
4. $121 \div 11 =$ _____

5. $42 \times 8 =$ _____

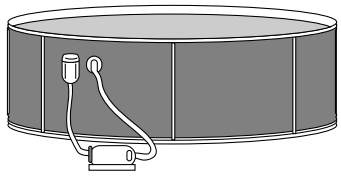
Name _____

Faces, Edges, and Vertices

Which solid figure do you see in each?

1. 

_____

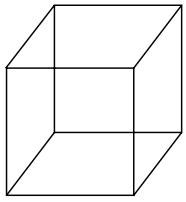
2. 

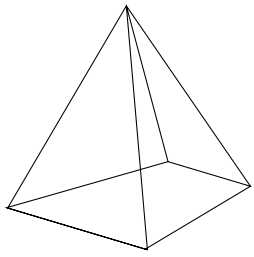
_____

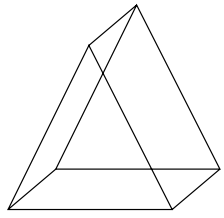
3. 

_____

Copy the drawings. Circle each vertex, outline each edge in red, and shade one face in yellow.

4. 

5. 

6. 

Write the names of the faces and the number of each kind of face of the solid figure.

7. triangular pyramid

_____

_____

8. triangular prism

_____

_____

9. square pyramid

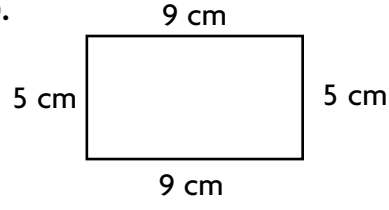
_____

_____

Mixed Review

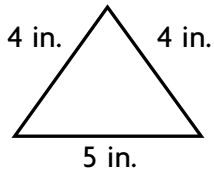
Find the perimeter of each figure.

10.



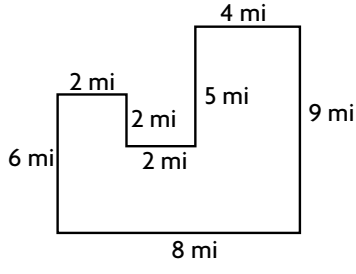
_____

11.



_____

12.



_____

Name _____

LESSON 27.2

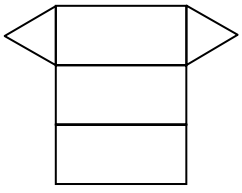
Patterns for Solid Figures

Vocabulary

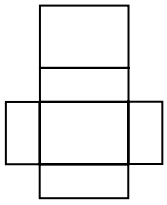
Fill in the blank.

1. A _____ is a two-dimensional pattern of a three-dimensional figure.

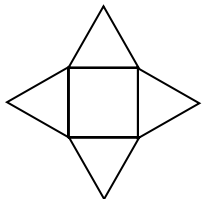
Write the letter of the figure that is made with each net.

2. 

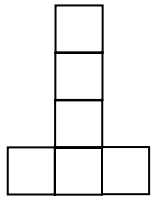
_____

3. 

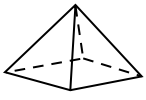
_____

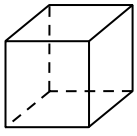
4. 

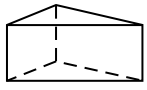
_____

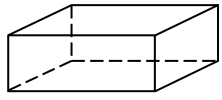
5. 

_____

a. 

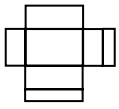
b. 

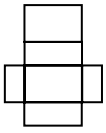
c. 

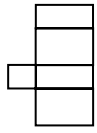
d. 

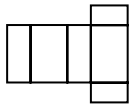
6. Which of the following nets would make a rectangular prism?

_____

a. 

b. 

c. 

d. 

Mixed Review

Divide.

7. $10\overline{)1{,}000}$

8. $14\overline{)0}$

9. $25\overline{)475}$

10. $32\overline{)256}$

11. Franz ate $1\frac{3}{8}$ granola bars. Aimee ate $2\frac{1}{8}$ granola bars. How many granola bars did Franz and Aimee eat in all?

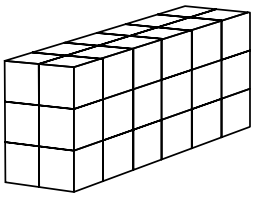
_____

Name _____

Estimate and Find Volume of Prisms

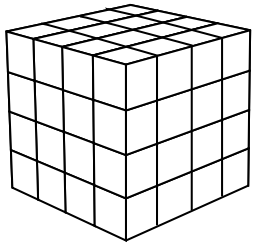
Find the volume.

1.



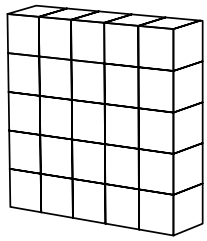
_____

2.



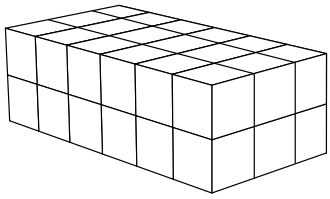
_____

3.



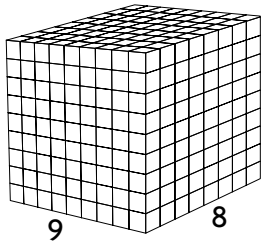
_____

4.



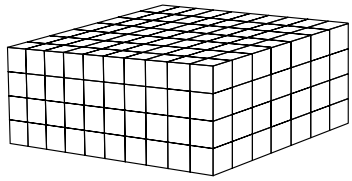
_____

5.



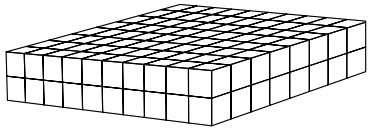
_____

6.



_____

7.



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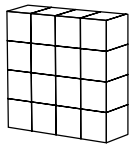
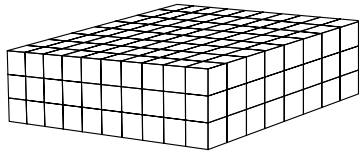
8.



_____

9.



_____

Mixed Review

Multiply.

10. $\begin{array}{r} 17 \\ \times\ 6 \\ \hline \end{array}$

11. $\begin{array}{r} 247 \\ \times\ 48 \\ \hline \end{array}$

12. $\begin{array}{r} 89 \\ \times\ 17 \\ \hline \end{array}$

13. $\begin{array}{r} 478 \\ \times\ 45 \\ \hline \end{array}$

14. $\begin{array}{r} 112 \\ \times\ 39 \\ \hline \end{array}$

15. $\begin{array}{r} 222 \\ \times\ 31 \\ \hline \end{array}$

16. $\begin{array}{r} 52 \\ \times\ 44 \\ \hline \end{array}$

17. $\begin{array}{r} 63 \\ \times\ 12 \\ \hline \end{array}$

18. $\begin{array}{r} 678 \\ \times\ 18 \\ \hline \end{array}$

19. $\begin{array}{r} 456 \\ \times\ 48 \\ \hline \end{array}$

Name _____

Problem Solving Skill: Too Much/Too Little Information

Decide if the problem has *too much* or *too little information*.
Then solve the problem if possible.

1. Mr. Stollenwerk has three drawers to store his clothes. He can fit 12 pants in one drawer, 25 shirts in the second drawer, and 19 pairs of socks in the third drawer. Each drawer is 6 feet long, 4 feet wide, and 1 foot high. What is the total volume of the three drawers?

_____

2. There are 90 rocks in Joe's box. He has 45 different kinds of rocks in his box. The box is 12 inches long, 6 inches wide, and 4 inches high. What is the volume of his box of rocks?

_____

3. Klamo likes to take pictures of animals in her backyard. She has over 100 pictures of animals. She keeps her pictures in a box that is 1 foot high. What is the volume of her box?

_____

4. Spencer puts corn from his garden into wooden boxes. Each box contains 30 ears of corn. Each box is 2 meters long and 1 meter wide. What is the volume of his wooden box?

_____

5. A cereal box weighs 1 pound. It is 12 inches high, 6 inches long, and 2 inches wide. What is the volume of the cereal box?

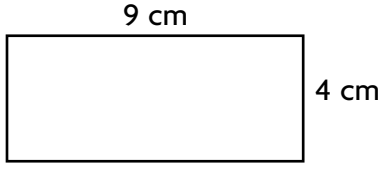
_____

Mixed Review

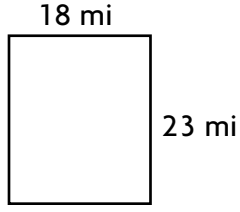
Find the area and perimeter of each.

6. 

_____

7. 

_____

8. 

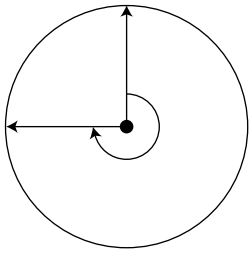
_____

Name _____

Turns and Degrees

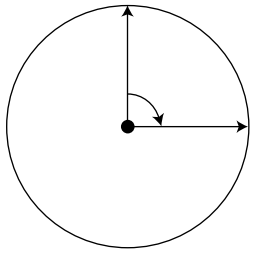
Tell whether the rays on the circle show a $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or full turn.

1.



_____

2.



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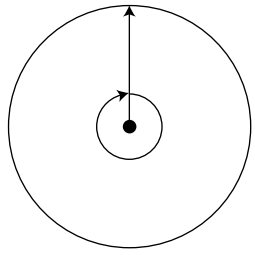
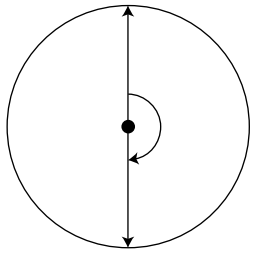
3.



_____

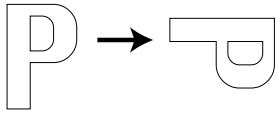
4.



_____

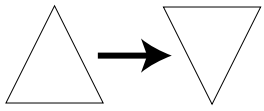
Tell whether the figure has been turned 90°, 180°, 270°, or 360°.

5.



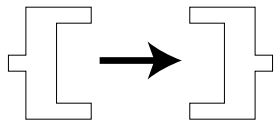
_____

6.



_____

7.



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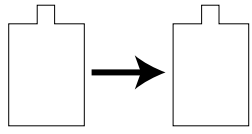
8.



_____

Mixed Review

Solve.

4. $\$2.35 \times 3$	**5.** $\$6.56 \times 9$	**6.** $\$1.87 \times 5$	**7.** $\$0.13 \times 12$	**8.** $\$2.57 \times 2$
14. $\$12.49 \times 3$	**15.** $\$9.15 \times 8$	**16.** $\$2.73 \times 22$	**17.** $\$1.96 \times 18$	**18.** $\$6.26 \times 6$
19. $\$3.78 \times 9$	**20.** $\$10.50 \times 9$	**21.** $\$6.89 \times 15$	**22.** $\$1.87 \times 13$	**23.** $\$3.45 \times 15$

24. $\frac{17}{6} =$ _____ **25.** $\frac{15}{4} =$ _____ **26.** $\frac{27}{8} =$ _____

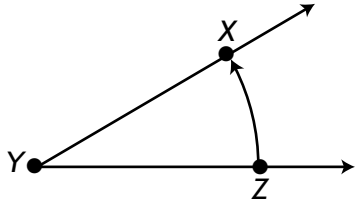
Name _____

LESSON 28.2

Measure Angles

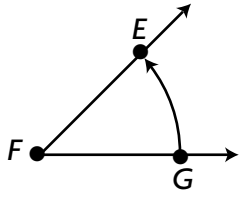
Use a protractor to measure the angle.

1.



_____

2.



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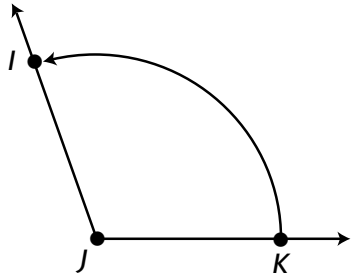
3.



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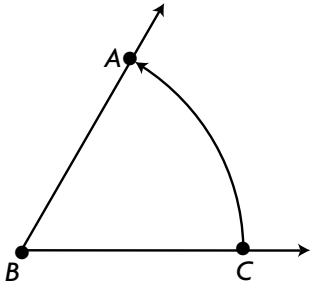
4.



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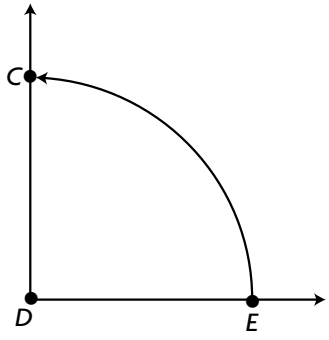
5.



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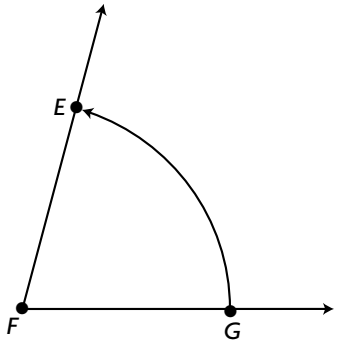
6.

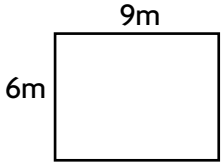


_____

Mixed Review

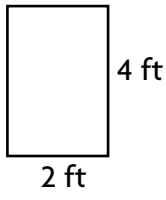
Find the area of the rectangles.

7.



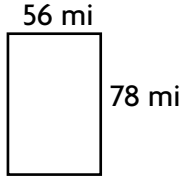
_____

8.



_____

9.



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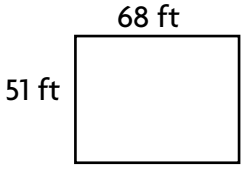
10.



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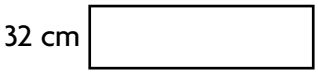
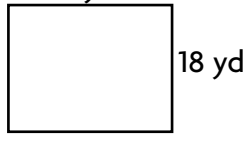
11.



_____

12.



_____

Name _____

Circles

Vocabulary

Define the following words.

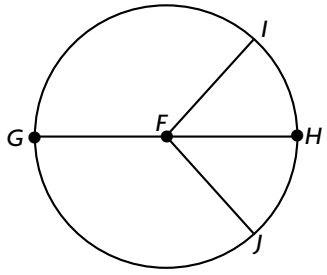
1. radius: _____

_____

2. diameter: _____

_____

For 3–6, use the drawing and a centimeter ruler.



3. The center of the circle is point _____.

4. The diameter of the circle is line segment _____.

5. Name each radius of the circle. _____, _____, _____,

   or _____

6. The points on the circle are _____, _____, _____, and _____.

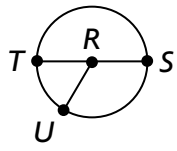
7. Draw a circle. Label the center point *A*.
   Draw a radius *AB*. Draw a diameter *CD*.

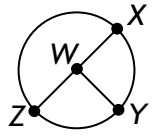
For 8–9, use Circles *R* and *W*.

8. Name the center of each circle. _____

9. Name each radius. _____

   _____





Mixed Review

10. What is the volume of a rectangular prism that has a length of 6 in., a width of 4 in., and a height of 8 in.?

    _____

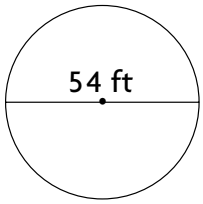
11. A cube has a volume of 64 cubic centimeters. What are the cube's dimensions?

    _____

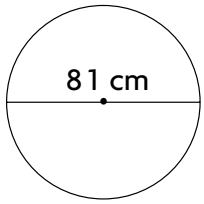
Name _____

Circumference

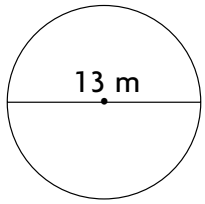
Estimate each circumference.

1. 

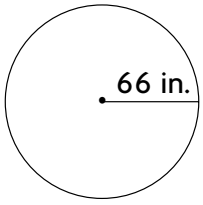
_____

2. 

_____

3. 

_____

4. 

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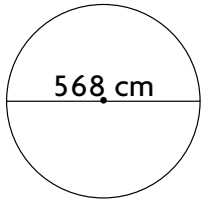
5. 

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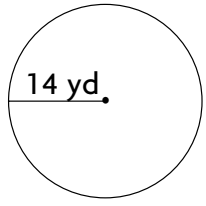
6. 

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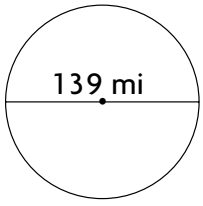
7. 

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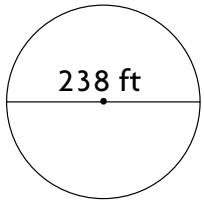
8. 

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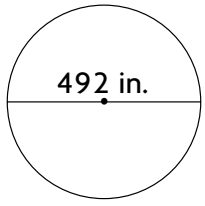
9. 

_____

10. A wheel has a circumference of 8 inches. It rolls 72 inches. How many complete turns did the wheel make?

_____

Mixed Review

Write the number in word form.

11. 7,849 _____

12. 182 _____

13. 1,283 _____

14. 9,634 _____

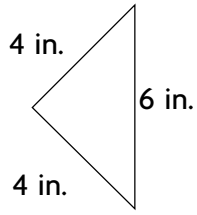
15. 17,334 _____

Name _____

Classify Triangles

Classify each triangle. Write *isosceles, scalene,* or *equilateral*.

1.



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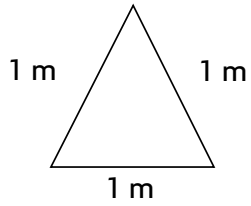
2.



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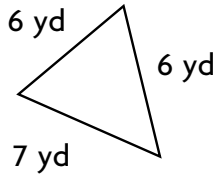

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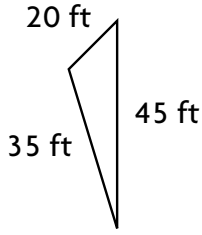

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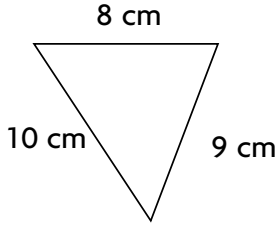

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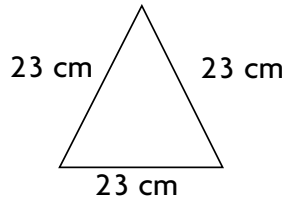

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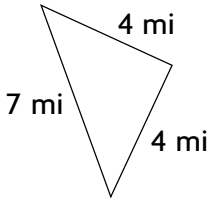

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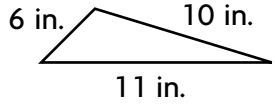

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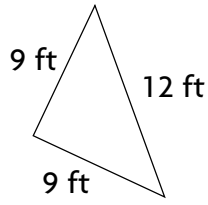


_____

Classify each triangle by the length of its sides. Write *isosceles, scalene,* or *equilateral*.

10. 12 in., 12 in., 12 in. _____

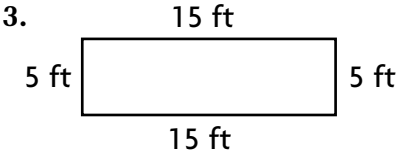
11. 65 yd, 43 yd, 65 yd _____

12. 45 mi, 23 mi, 56 mi _____

Mixed Review

Find the perimeter and area of each figure.

13.



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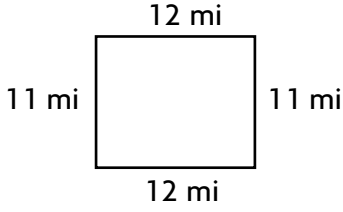

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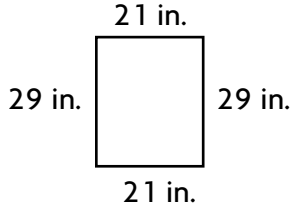


_____

Name _____ LESSON 28.6

Classify Quadrilaterals

Vocabulary

Fill in the blanks.

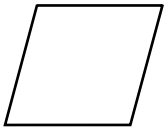
1. General _____ have 4 sides and 4 angles.

2. _____ have 2 sides that are parallel.

3. _____ have 2 pairs of parallel sides. They have 2 acute angles of the same size and 2 obtuse angles of the same size.

4. A _____ has 4 congruent sides. Its opposite sides are parallel and it has no right angles.

Classify each figure in as many ways as possible. Write *quadrilateral, parallelogram, square, rectangle, rhombus,* or *trapezoid*.

5. 

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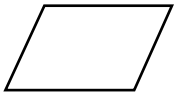
6. 

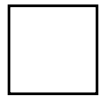
_____

_____

7. 

_____

_____

8. 

_____

_____

Draw an example of each quadrilateral.

9. trapezoid

10. square

11. rhombus

12. parallelogram

13. rectangle

14. general quadrilateral

Mixed Review

15. $\begin{array}{r} 250 \\ \times \quad 7 \\ \hline \end{array}$

16. $\begin{array}{r} 864 \\ \times \quad 5 \\ \hline \end{array}$

17. $\begin{array}{r} 793 \\ \times \quad 6 \\ \hline \end{array}$

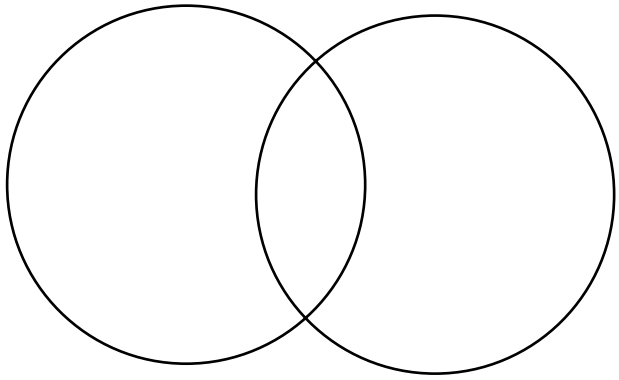
18. $\begin{array}{r} 122 \\ \times \quad 8 \\ \hline \end{array}$

Problem Solving Strategy

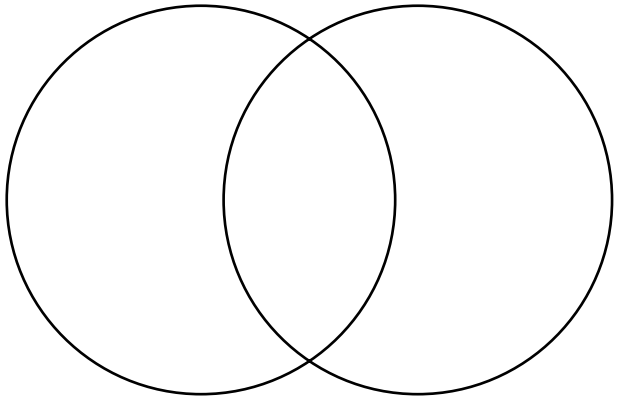
Draw a Diagram

Follow the directions.

1. Mrs. Wimmers has 3 marbles that are blue, 4 marbles that are red, and 2 marbles that are both blue and red. She wants to sort her marbles by color. Draw a diagram that sorts the marbles by color.



2. Hannah, Andy, Alexis, Mike, and Katie can play the drums. James, John, Vickie, and Chris can play the trumpet. Patrick, Erin, Alicia, and Sarah can play the drums and the trumpet. Draw a diagram that sorts these students by the instrument they play.



Mixed Review

Add or Subtract.

3. 6,783 + 3,960	**4.** 8,743 − 586	**5.** 54,732 + 4,694	**6.** 9,275 + 2,392	**7.** 14,821 − 4,812

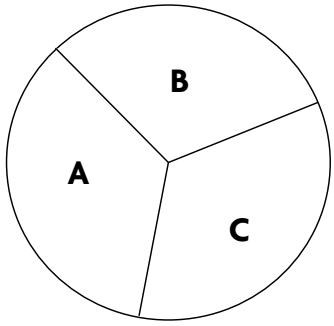
Name _____ LESSON 29.1

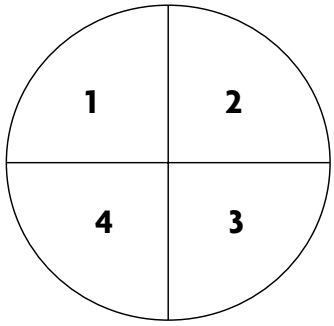
Record Outcomes

Use Data

For 1–4, use the table.

Don and Carol organized their outcomes in this table. They used the 3-letter spinner and the 4-number spinner shown.





	Letter		
Number	A	B	C
1	II		I
2		III	
3	I		I
4	IIII		II

1. Name all the possible outcomes for this experiment.

_____

_____

2. How many possible outcomes are there?

_____

3. How many outcomes would there be if they had used a 4-letter spinner?

_____

4. In Don and Carol's experiment which outcome occurred most often?

_____

Mixed Review

5. $\begin{array}{r} 318{,}849 \\ +\ 984{,}741 \\ \hline \end{array}$

6. $\begin{array}{r} 52{,}842 \\ \times\ \ \ 6 \\ \hline \end{array}$

7. $17\overline{)893}$

8. $\frac{5}{12} - \frac{1}{4} =$ _____

9. $\frac{7}{15} - \frac{9}{30} =$ _____

10. $\begin{array}{r} 2.875 \\ +\ 0.789 \\ \hline \end{array}$

11. $\begin{array}{r} 79.32 \\ -\ 42.98 \\ \hline \end{array}$

12. $14\overline{)493}$

Name _____

Tree Diagrams

For 1–4, you are choosing one of each. Find the number of possible outcomes by making a tree diagram.

1. Higgins the clown, has 3 hats (red, yellow, or blue) to choose from to match his 6 suits (gold, orange, blue, green, purple, and yellow). How many choices does he have?

_____

2. Kathy has 6 different sweaters to wear with her 4 pairs of slacks. How many possible choices does she have?

_____

3. Footwear Choices:
Shoes: navy, black, or brown
Socks: white, black, or tan

_____

4. Event choices:
Events: sports, play, or movie
Day: Saturday or Sunday

_____

5. Thomas had 8 different combinations of hats and coats. How many hats does he have? How many coats does he have?

_____

_____

_____

6. Julia has a choice of using bibb lettuce or red leaf lettuce for her birthday dinner. In addition, she can choose Italian, Russian, or French salad dressing. How many different combinations are there?

_____

Mixed Review

7. Solve: $(2 \times 4) + (2 \times 2)$

_____

8. Round 278,150 to the nearest thousand.

_____

9. Compare. Write $<$, $>$, or $=$.

379,560 ___?___ 379,561

_____

10. Solve for n.

$20 - (12 - 2) = n$

_____

Name _____

LESSON 29.3

Problem Solving Strategy

Make an Organized List

Make an organized list to solve.

1. A spinner is labeled 6, 7, and 8. List all of the possible combinations of spinning it 2 times.

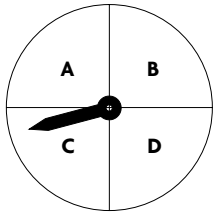
_____

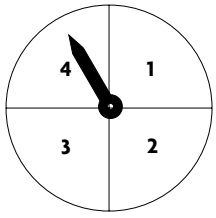
_____

2. Jeanne is writing a report on the computer. She has a choice of 5 different designs for the cover, and 3 different fonts for the report. How many possible ways of creating this report are there?

_____

For 3–6, find the possible outcomes of spinning each pointer one time.





3. How many possible outcomes are there?

_____

4. List all of the possible outcomes.

_____

_____

5. How many possible outcomes would there be if the spinner had 6 numbers?

_____

6. How many of the possible outcomes include the letter F?

_____

Mixed Review

7. The race started at 6:53 P.M. and ended at 7:14 P.M. How long did the race take?

_____

8. Find the sum of $15,666.22 and $14,323.56.

_____

9. Solve: $(6 \times 4) - (3 \times 2)$.

_____

10. Round 4,278,555 to the nearest ten-thousand.

_____

Name _____

Predict Outcomes of Experiments

Write *likely, unlikely,* or *equally likely* for the events.

1. Tossing an even number or tossing an odd number using a cube numbered 1–6.

_____

2. Rolling a prime number on a cube with the numbers 3, 5, 7, 9, 11, and 13.

_____

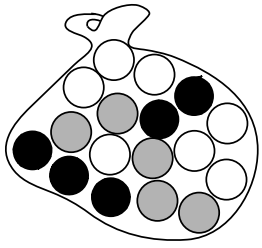
3. Pulling a yellow marble from a bag with 10 green marbles, 6 red marbles, and one yellow marble.

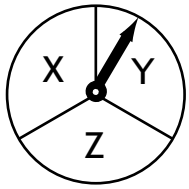
_____

4. Spinning a 3 on a spinner with the numbers 1, 2, 3, 3, 3, 3, 3, 3, 6, 6.

_____

For 5–8, look at the pictures.





5. Which 2 types of marbles are you equally likely to pull from the bag of marbles?

_____

6. Which type are you most likely to pull? Why?

_____

_____

7. Is it certain or impossible that you could spin a capital letter on the spinner?

_____

8. Is it certain or impossible that you could spin an M on the spinner?

_____

Mixed Review

9. What is the missing number in the sequence?

2, 3, ___ , 7, 11

10. Estimate the product of 68 and 21.

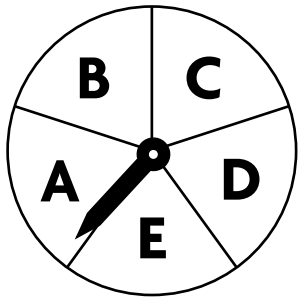
_____

Name _____

LESSON 30.1

Probability as a Fraction

Look at the spinner at the right. Find the probability of each event.



1. The letter *C* _____

2. The letter *E* _____

3. A vowel _____

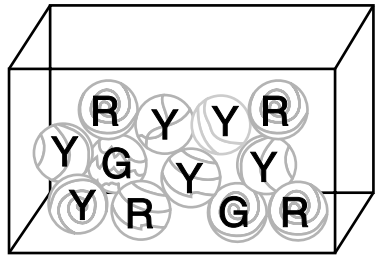
4. A letter in the word *CAB* _____

5. The letter *F* _____

6. A consonant _____

7. The letter *A* _____

Look at the box of marbles. Write *impossible, less likely, more likely, equally likely, or certain* for each event and find the probability.



8. A marble that is not red. _____

9. An orange marble. _____

10. A green marble. _____

11. A yellow marble. _____

12. A marble that is not green. _____

Mixed Review

13. Amanda bought an oil painting for $45.95 at the church bazaar. How much change will she get from a fifty dollar bill?

_____

14. Add. $3\frac{1}{2} + 4\frac{2}{3}$

_____

15. Write <, >, or = for $\frac{?}{}$.

$(42 + 7) - 33 \ \frac{?}{} \ (64 \div 8) + 7$

16. Order from least to greatest:

1.34; 1.32; 0.134; 13.2; 1

_____

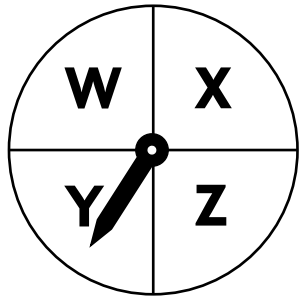
Name _____

More About Probability

Use Data

For 1–4, use the spinner and the table.

SPINNER EXPERIMENT—100 SPINS				
Outcome	W	X	Y	Z
Tally	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸



1. What is the mathematical probability of the pointer stopping on each letter on the spinner?

W _____ *Y* _____

X _____ *Z* _____

2. Use the data in the table. Find the experimental probability of the pointer stopping on each letter.

W _____ *Y* _____

X _____ *Z* _____

3. Use the table to find the experimental probability of the pointer's stopping on *W*. How does this compare to the mathematical probability?

_____

4. Compare the experimental probability with the mathematical probability of the pointer's stopping on *X*, *Y*, and *Z*.

_____

_____

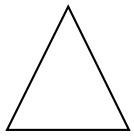
_____

Mixed Review

5. James is buying a new computer. He is choosing among 3 different hard drives, 4 different printers, and 5 modems. How many possible computer packages could he make?

_____

6. What kind of triangle is shown below?



_____

Name _____

LESSON 30.3

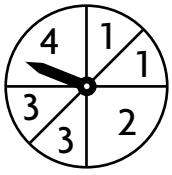
Test for Fairness

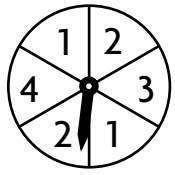
Vocabulary

Fill in the blank.

1. _____ in a game means that one player is as likely to win as another. Each player has an equal chance of winning.

Tell if each spinner is fair. Write *yes* or *no.* If your answer is *no,* explain.

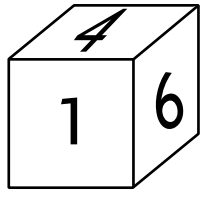
2. 

3. 

_____ _____

_____ _____

In Victor's game, players choose to be either "2" or "3." Players take turns rolling a number cube labeled 1 to 6. If a player is a "2" and rolls a 2, 4, or 6, he or she scores a point. If a player is a "3" and rolls a 3 or a 6, he or she scores a point.



4. What is the probability of the "2" player scoring a point? the "3" player?

_____ _____

5. Why is this game not fair?

_____ _____

6. How could you change the game to make it fair?

_____

Mixed Review

7. 156 inches = ___?___ feet

8. 156 yards = ___?___ feet

9. $\begin{array}{r} 32{,}845 \\ 951{,}511 \\ +\ 314{,}288 \\ \hline \end{array}$

10. $\begin{array}{r} 65{,}849 \\ \times\quad 8 \\ \hline \end{array}$

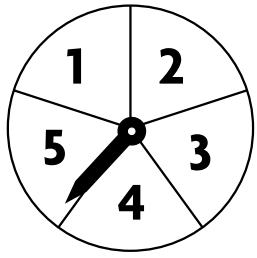
11. $2\frac{1}{4} + 4\frac{5}{6} =$ _____

Problem Solving Skill: Draw Conclusions

1. Jack and Kylie are playing a game with a bag of 10 yellow, green, black, and red marbles. Jack earns 1 point when he draws a yellow marble; Kylie earns 1 point when she draws a green marble. Use the clues to find the colors of the marbles in the bag. Tell whether the game is fair. Explain.

BAG OF MARBLES CLUES

- The probability of drawing a red marble is $\frac{3}{10}$.
- The probability of drawing Jack's color is $\frac{2}{10}$.
- The probability of not drawing Kylie's color is $\frac{9}{10}$.



For 2–3, use the spinner.

Tom and Harry made up rules for a 2-player game using the spinner. Tell if the game is fair or not using probability.

2. Tom's game:
Player 1 scores 1 point for an odd number

Player 2 scores 1 point for a prime number

_____

_____

_____

_____

3. Harry's game:
Player 1 scores 3 points for a composite number

Player 2 scores 3 points for a factor of 6

_____

_____

_____

_____

Mixed Review

4. What are the factors of 21?

_____

5. Change $\frac{9}{2}$ to a mixed number.

_____

6. Write 0.9 as a fraction.

_____

7. List 5 multiples of 9.

_____

_____