

**HARCOURT**

# Math

## **Practice Workbook**

**PUPIL EDITION**

**Grade 5**



Orlando • Boston • Dallas • Chicago • San Diego  
[www.harcourtschool.com](http://www.harcourtschool.com)

Copyright © by Harcourt, Inc.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Permission is hereby granted to individual teachers using the corresponding student's textbook or kit as the major vehicle for regular classroom instruction to photocopy complete pages from this publication in classroom quantities for instructional use and not for resale.

Duplication of this work other than by individual classroom teachers under the conditions specified above requires a license. To order a license to duplicate this work in greater than classroom quantities, contact Customer Service, Harcourt, Inc., 6277 Sea Harbor Drive, Orlando, Florida 32887-6777. Telephone: 1-800-225-5425. Fax: 1-800-874-6418 or 407-352-3445.

HARCOURT and the Harcourt Logo are trademarks of Harcourt, Inc.

Printed in the United States of America

ISBN 0-15-320785-X

2 3 4 5 6 7 8 9 10 073 10 09 08 07 06 05 04 03 02 01

# CONTENTS

## ▶ Unit 1: USE WHOLE NUMBERS AND DECIMALS

### ▶ Chapter 1: Place Value of Whole Numbers

- 1.1 Understand Place Value . . . . . 1
- 1.2 Millions and Billions . . . . . 2
- 1.3 Compare Numbers . . . . . 3
- 1.4 Order Numbers . . . . . 4
- 1.5 Problem Solving Skill:  
Use a Table . . . . . 5

### ▶ Chapter 2: Place Value of Decimals

- 2.1 Tenths and Hundredths . . . . . 6
- 2.2 Thousandths and  
Ten-Thousandths . . . . . 7
- 2.3 Equivalent Decimals . . . . . 8
- 2.4 Compare and Order Decimals . . . . 9
- 2.5 Problem Solving Skill: Draw  
Conclusions . . . . . 10

### ▶ Chapter 3: Add and Subtract Whole Numbers

- 3.1 Round Whole Numbers . . . . . 11
- 3.2 Estimate Sums and Differences . . . 12
- 3.3 Add and Subtract Whole  
Numbers . . . . . 13
- 3.4 Choose a Method . . . . . 14
- 3.5 Problem Solving Strategy: Use  
Logical Reasoning . . . . . 15

### ▶ Chapter 4: Add and Subtract Decimals

- 4.1 Round Decimals . . . . . 16
- 4.2 Estimate Decimal Sums and  
Differences . . . . . 17
- 4.3 Add and Subtract Decimals . . . . . 18

- 4.4 Zeros in Subtraction . . . . . 19
- 4.5 Problem Solving Skill: Estimate or  
Find Exact Answer . . . . . 20

## ▶ Unit 2: ALGEBRA, DATA, AND GRAPHING

### ▶ Chapter 5: Algebra: Use Addition

- 5.1 Expressions and Variables . . . . . 21
- 5.2 Write Equations . . . . . 22
- 5.3 Solve Equations . . . . . 23
- 5.4 Use Addition Properties . . . . . 24
- 5.5 Problem Solving Skill: Use  
a Formula . . . . . 25

### ▶ Chapter 6: Algebra: Use Multiplication

- 6.1 Write and Evaluate Expressions . . . 26
- 6.2 Order of Operations . . . . . 27
- 6.3 Functions . . . . . 28
- 6.4 Problem Solving Strategy: Write  
an Equation. . . . . 29
- 6.5 Use Multiplication Properties . . . . 30
- 6.6 The Distributive Property . . . . . 31

### ▶ Chapter 7: Analyze Data and Graphs

- 7.1 Collect and Organize Data . . . . . 32
- 7.2 Find the Mean. . . . . 33
- 7.3 Find the Median and Mode . . . . . 34
- 7.4 Problem Solving Strategy:  
Make a Graph . . . . . 35
- 7.5 Analyze Graphs . . . . . 36

### ▶ Chapter 8: Make Graphs

- 8.1 Choose a Reasonable Scale . . . . . 37

8.2 Problem Solving Strategy: Make a Graph .....	38
8.3 Graph Ordered Pairs .....	39
8.4 Make Line Graphs .....	40
8.5 Histograms .....	41
8.6 Choose the Appropriate Graph ...	42

 **Unit 3: MULTIPLY WHOLE NUMBERS AND DECIMALS**

 **Chapter 9: Multiply Whole Numbers**

9.1 Estimation: Patterns in Multiples ..	43
9.2 Multiply by 1-Digit Numbers .....	44
9.3 Multiply by 2-Digit Numbers .....	45
9.4 Choose a Method .....	46
9.5 Problem Solving Skill: Evaluate Answers for Reasonableness .....	47

 **Chapter 10: Multiply Decimals**

10.1 Multiply Decimals and Whole Numbers .....	48
10.2 Algebra: Patterns in Decimal Factors and Products .....	49
10.3 Model Decimal Multiplication ...	50
10.4 Place the Decimal Point .....	51
10.5 Zeros in the Product .....	52
10.6 Problem Solving Skill: Make Decisions .....	53

 **Unit 4: DIVIDE WHOLE NUMBERS AND DECIMALS**

 **Chapter 11: Divide by 1-Digit Divisors**

11.1 Estimate Quotients .....	54
11.2 Divide 3-Digit Dividends .....	55
11.3 Zeros in Division .....	56
11.4 Choose a Method .....	57
11.5 Algebra: Expressions and Equations .....	58
11.6 Problem Solving Skill: Interpret the Remainder .....	59

 **Chapter 12: Divide by 2-Digit Divisors**

12.1 Algebra: Patterns in Division .....	60
12.2 Estimate Quotients .....	61
12.3 Divide by 2-Digit Divisors .....	62
12.4 Correcting Quotients .....	63
12.5 Practice Division .....	64
12.6 Problem Solving Strategy: Predict and Test .....	65

 **Chapter 13: Divide Decimals by Whole Numbers**

13.1 Algebra: Patterns in Decimal Division .....	66
13.2 Decimal Division .....	67
13.3 Divide Decimals by Whole Numbers .....	68
13.4 Problem Solving Strategy: Compare Strategies: Work Backward or Draw a Diagram .....	69
13.5 Divide to Change a Fraction to a Decimal .....	70

 **Chapter 14: Divide Decimals by Decimals**

14.1 Algebra: Patterns in Decimal Division .....	71
14.2 Divide with Decimals .....	72
14.3 Decimal Division .....	73
14.4 Problem Solving Skill: Choose the Operation .....	74

 **Unit 5: NUMBER THEORY AND FRACTIONS**

 **Chapter 15: Number Theory**

15.1 Divisibility .....	75
15.2 Multiples and Least Common Multiples .....	76
15.3 Greatest Common Factor .....	77
15.4 Problem Solving Skill: Identify Relationships .....	78
15.5 Prime and Composite Numbers ..	79
15.6 Introduction to Exponents .....	80

15.7 Evaluate Expressions with Exponents . . . . .	81	19.2 Multiply a Fraction by a Fraction . . . . .	102
15.8 Exponents and Prime Factors . . . . .	82	19.3 Multiply Fractions and Mixed Numbers . . . . .	103
<b>▶ Chapter 16: Fraction Concepts</b>		19.4 Multiply with Mixed Numbers . . . . .	104
16.1 Relate Decimals to Fractions . . . . .	83	19.5 Problem Solving Skill: Sequence and Prioritize Information . . . . .	105
16.2 Equivalent Fractions . . . . .	84	<b>▶ Chapter 20: Divide Fractions</b>	
16.3 Compare and Order Fractions . . . . .	85	20.1 Divide Fractions . . . . .	106
16.4 Simplest Form . . . . .	86	20.2 Reciprocals . . . . .	107
16.5 Understand Mixed Numbers . . . . .	87	20.3 Divide Whole Numbers by Fractions . . . . .	108
16.6 Problem Solving Strategy: Make a Model . . . . .	88	20.4 Divide Fractions . . . . .	109
<b>▶ Unit 6: OPERATIONS WITH FRACTIONS</b>		20.5 Problem Solving Strategy: Solve a Simpler Problem . . . . .	110
<b>▶ Chapter 17: Add and Subtract Fractions</b>		<b>▶ Unit 7: ALGEBRA AND GEOMETRY</b>	
17.1 Add and Subtract Like Fractions . . . . .	89	<b>▶ Chapter 21: Algebra: Integers</b>	
17.2 Add Unlike Fractions . . . . .	90	21.1 Integers . . . . .	111
17.3 Subtract Unlike Fractions . . . . .	91	21.2 Compare and Order Integers . . . . .	112
17.4 Estimate Sums and Differences . . . . .	92	21.3 Add Integers . . . . .	113
17.5 Use Least Common Denominators . . . . .	93	21.4 Subtract Integers . . . . .	114
17.6 Add and Subtract Unlike Fractions . . . . .	94	21.5 Subtract Integers . . . . .	115
17.7 Problem Solving Strategy: Work Backward . . . . .	95	21.6 Problem Solving Strategy: Draw a Diagram . . . . .	116
<b>▶ Chapter 18: Add and Subtract Mixed Numbers</b>		<b>▶ Chapter 22: Geometry and the Coordinate Plane</b>	
18.1 Add Mixed Numbers . . . . .	96	22.1 Graph Relationships . . . . .	117
18.2 Subtract Mixed Numbers . . . . .	97	22.2 Graph Integers on the Coordinate Plane . . . . .	118
18.3 Subtraction with Renaming . . . . .	98	22.3 Use an Equation to Graph . . . . .	119
18.4 Practice with Mixed Numbers . . . . .	99	22.4 Problem Solving Skill: Relevant or Irrelevant Information . . . . .	120
18.5 Problem Solving Skill: Multistep Problems . . . . .	100	<b>▶ Chapter 23: Plane Figures</b>	
<b>▶ Chapter 19: Multiply Fractions</b>		23.1 Lines and Angles . . . . .	121
19.1 Multiply Fractions and Whole Numbers . . . . .	101	23.2 Measure and Draw Angles . . . . .	122
		23.3 Angles and Polygons . . . . .	123

23.4	Circles	124
23.5	Congruent and Similar Figures	125
23.6	Symmetric Figures	126
23.7	Problem Solving Strategy: Find a Pattern	127

**Chapter 24: Classify Plane and Solid Figures**

24.1	Triangles	128
24.2	Quadrilaterals	129
24.3	Algebra: Transformations	130
24.4	Solid Figures	131
24.5	Draw Solid Figures from Different Views	132
24.6	Problem Solving Skill: Make Generalizations	133

**Unit 8: MEASUREMENT**

**Chapter 25: Customary and Metric Systems**

25.1	Customary Length	134
25.2	Metric Length	135
25.3	Change Linear Units	136
25.4	Customary Capacity and Weight	137
25.5	Metric Capacity and Mass	138
25.6	Time	139
25.7	Problem Solving Strategy: Make a Table	140

**Chapter 26: Perimeter and Area**

26.1	Perimeter	141
26.2	Algebra: Circumference	142
26.3	Algebra: Area of Squares and Rectangles	143
26.4	Relate Perimeter and Area	144
26.5	Algebra: Area of Triangles	145
26.6	Algebra: Area of Parallelograms	146
26.7	Area of Irregular Figures	147
26.8	Problem Solving Strategy: Solve a Simpler Problem	148

**Chapter 27: Surface Area and Volume**

27.1	Nets for Solid Figures	149
27.2	Surface Area	150
27.3	Algebra: Volume	151
27.4	Measure Perimeter, Area, and Volume	152
27.5	Problem Solving Skill: Use a Formula	153

**Unit 9: RATIO, PERCENT, AND PROBABILITY**

**Chapter 28: Ratio**

28.1	Understand Ratios	154
28.2	Express Ratios	155
28.3	Ratios and Proportions	156
28.4	Scale Drawings	157
28.5	Problem Solving Skill: Too Much/ Too Little Information	158

**Chapter 29: Percent**

29.1	Understand Percent	159
29.2	Relate Decimals and Percents	160
29.3	Relate Fractions, Decimals, and Percents	161
29.4	Find a Percent of a Number	162
29.5	Mental Math: Percent of a Number	163
29.6	Problem Solving Strategy: Make a Graph	164
29.7	Compare Data Sets	165

**Chapter 30: Probability**

30.1	Probability Experiments	166
30.2	Outcomes	167
30.3	Probability Expressed as a Fraction	168
30.4	Compare Probabilities	169
30.5	Problem Solving Strategy: Make an Organized List	170



## Understand Place Value

Write the value of the **boldfaced** digit.

1. **3**,645

2. **34**

3. **7**98,000

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. **6**4,530

5. **8**92

6. **6**02,456

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write each number in expanded form and word form.

7. 23,645 \_\_\_\_\_

\_\_\_\_\_

8. 990,104 \_\_\_\_\_

\_\_\_\_\_

9. 7,828 \_\_\_\_\_

\_\_\_\_\_

Write each number in standard form.

10.  $40,000 + 2,000 + 600 + 80 + 2$

11. thirty-five thousand, forty-two

\_\_\_\_\_

\_\_\_\_\_

## Mixed Review

12.  $17 + 98$  \_\_\_\_\_

13.  $85 - 58$  \_\_\_\_\_

14.  $56 \times 7$  \_\_\_\_\_

15.  $25 \times 5$  \_\_\_\_\_

16.  $95 \times 2$  \_\_\_\_\_

17.  $11 \times 2$  \_\_\_\_\_

18. 
$$\begin{array}{r} 237 \\ + 63 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 468 \\ - 9 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 314 \\ + 9 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 324 \\ - 32 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 418 \\ - 21 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 603 \\ - 27 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 257 \\ + 5 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 354 \\ + 236 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 716 \\ + 931 \\ \hline \end{array}$$

27. 
$$\begin{array}{r} 480 \\ - 139 \\ \hline \end{array}$$

## Millions and Billions

Write each number in standard form.

1. thirty-two million, ten thousand one

\_\_\_\_\_

2. three hundred two billion, sixty million, sixty-six thousand, nine hundred

\_\_\_\_\_

Write the value of the **boldfaced** digit.

3. **1**89,612,357

\_\_\_\_\_

4. 5**2**1,874,394

\_\_\_\_\_

5. **3**,794,216,055

\_\_\_\_\_

Write each number in two different ways.

6. 125,740,689 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. 200,403,926 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. 5,248,663,711 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. A bowl holds 100 peanuts. How many bowls would hold a million peanuts?

\_\_\_\_\_

10. If you save 10¢ a day, how many days would it take to save a million cents?

\_\_\_\_\_

## Mixed Review

Write the factors.

11. 15 \_\_\_\_\_ 12. 36 \_\_\_\_\_ 13. 27 \_\_\_\_\_





## Compare Numbers

Start at the left. Name the first place-value position where the digits differ. Name the greater number.

1. 1,799,347;  
1,797,221

\_\_\_\_\_  
\_\_\_\_\_

2. 3,555,782;  
2,639,221

\_\_\_\_\_  
\_\_\_\_\_

3. 97,145,346;  
97,245,375

\_\_\_\_\_  
\_\_\_\_\_

4. 670,256,112;  
569,247,221

\_\_\_\_\_  
\_\_\_\_\_

5. 34,910,023;  
34,910,295

\_\_\_\_\_  
\_\_\_\_\_

6. 83,945,203;  
82,943,290

\_\_\_\_\_  
\_\_\_\_\_

7. 823,579,044;  
823,579,043

\_\_\_\_\_  
\_\_\_\_\_

8. 749,566,001;  
759,566,000

\_\_\_\_\_  
\_\_\_\_\_

9. 56,239,448;  
56,217,456

\_\_\_\_\_  
\_\_\_\_\_

10. 967,442,011;  
967,442,021

\_\_\_\_\_  
\_\_\_\_\_

11. 326,599,675;  
326,738,902

\_\_\_\_\_  
\_\_\_\_\_

12. 5,266,903;  
5,266,993

\_\_\_\_\_  
\_\_\_\_\_

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

13. 345,922  $\bigcirc$  34,592

15. 44,576,493  $\bigcirc$  44,577,497

17. 55,377,294  $\bigcirc$  55,377,294

19. 456,197,203  $\bigcirc$  456,197,203

21. 77,032,665  $\bigcirc$  77,932,440

23. 811,564,007  $\bigcirc$  811,566,290

14. 275,669,128  $\bigcirc$  275,669,129

16. 67,387  $\bigcirc$  67,256

18. 935,771,220  $\bigcirc$  935,771,212

20. 1,366,792  $\bigcirc$  1,266,457

22. 2,767,394,201  $\bigcirc$  2,769,341,222

24. 67,294,007  $\bigcirc$  67,294,007

## Mixed Review

25.  $48 \div 4$  \_\_\_\_\_ 26.  $75 + 19$  \_\_\_\_\_ 27.  $55 - 29$  \_\_\_\_\_ 28.  $7 \times 8$  \_\_\_\_\_

## Order Numbers

Order from greatest to least.

1. 2,647; 217,553; 23,667

\_\_\_\_\_

2. 295,254; 386,407; 385,245

\_\_\_\_\_

3. 16,450; 16,399; 16,576;

\_\_\_\_\_

4. 2,735; 28,362; 532

\_\_\_\_\_

5. 1,750,439; 1,750,419; 1,750,506

\_\_\_\_\_

6. 5,064; 5,245; 6,001

\_\_\_\_\_

7. 676,259; 733,157; 7,892

\_\_\_\_\_

8. 669,345,201; 669,345,903;  
668,544,201

\_\_\_\_\_

Order from least to greatest.

9. 7,674; 7,773; 7,978

\_\_\_\_\_

10. 690,699; 275,789; 544,266

\_\_\_\_\_

11. 1,300,546; 1,259,708; 1,259,456

\_\_\_\_\_

12. 43,857; 45,019; 44,777

\_\_\_\_\_

13. 5,060,560; 5,052,300; 5,053,980

\_\_\_\_\_

14. 87,315; 97,229; 78,999

\_\_\_\_\_

15. 56,275,988; 56,275,703; 56,295,148

\_\_\_\_\_

16. 453,097,111; 473,095,477;  
452,555,439

\_\_\_\_\_

### Mixed Review

17.  $8 \times 8$  \_\_\_\_\_    18.  $48 \div 8$  \_\_\_\_\_    19.  $49 - 16$  \_\_\_\_\_    20.  $57 + 19$  \_\_\_\_\_

21.  $62 - 44$  \_\_\_\_\_    22.  $5 \times 12$  \_\_\_\_\_    23.  $84 + 12$  \_\_\_\_\_    24.  $45 \times 2$  \_\_\_\_\_

25. Write nine billion, seven hundred million, forty-five thousand, three hundred six in standard form. \_\_\_\_\_



## Problem Solving Skill

### Use a Table

For 1–3, use the States table.

1. Which state has the greatest population?

\_\_\_\_\_

2. Which state has a population of eight million when rounded to the nearest million?

\_\_\_\_\_

3. Which states have populations greater than 10,000,000?

\_\_\_\_\_

STATES	
Name	Population
Arkansas	2,538,303
California	32,666,550
Georgia	7,642,207
Illinois	12,045,326

For 4–6, use the California Cities table.

4. Order the cities from greatest to least population.

\_\_\_\_\_

\_\_\_\_\_

5. Which city has a population of about one million?

\_\_\_\_\_

CALIFORNIA CITIES	
City	Population
San Diego	1,110,549
Los Angeles	3,485,398
Long Beach	429,433
San Francisco	723,959

6. Which city's population is about 300,000 more than Long Beach's population?

\_\_\_\_\_

### Mixed Review

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

7. 563  $\bigcirc$  653

8. 975  $\bigcirc$  946

9. 432  $\bigcirc$  412

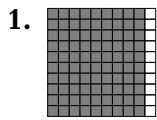
10. 294  $\bigcirc$  314

11. 506  $\bigcirc$  560

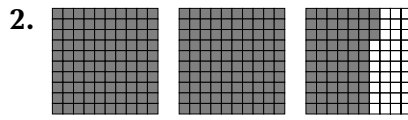
12. 813  $\bigcirc$  381

## Tenths and Hundredths

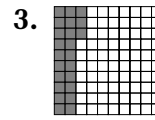
Write as a decimal and a fraction or mixed number.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

4.  $5 + 0.4$

\_\_\_\_\_

5.  $0.8 + 0.01$

\_\_\_\_\_

6.  $7 + 0.9 + 0.03$

\_\_\_\_\_

7. sixty-five hundredths

\_\_\_\_\_

8. four and three tenths

\_\_\_\_\_

9. seven and twenty-two hundredths

\_\_\_\_\_

Write the missing decimal in each pattern. Describe the pattern.

10. 0.15, 0.30, 0.45,  $\square$ , 0.75

\_\_\_\_\_

11. 1.12, 1.04, 0.96,  $\square$ , 0.80, 0.72

\_\_\_\_\_

12. 2.07, 2.14,  $\square$ , 2.28

\_\_\_\_\_

13. 0.1, 0.5,  $\square$ , 1.3, 1.7

\_\_\_\_\_

### Mixed Review

14.  $99 \div 3$

\_\_\_\_\_

15.  $11 \times 7$

\_\_\_\_\_

16.  $292 + 308$

\_\_\_\_\_

17.  $934 - 349$

\_\_\_\_\_

18. Write five billion, three hundred fifty-seven million in standard form.

\_\_\_\_\_

19. Write the value of the boldfaced digit in 4,**5**93,678,002.

\_\_\_\_\_

Order from least to greatest.

20. 518,808; 518,388; 518,838

\_\_\_\_\_

21. 64,460,144; 64,660,114; 64,604,111

\_\_\_\_\_



## Thousandths and Ten-Thousandths

Write each decimal in expanded form, in word form, and as a fraction.

1. 2.089

---

---

---

2. 4.1967

---

---

---

3. 3.504

---

---

4. 0.6045

---

---

Write in standard or expanded form.

5. fifteen thousandths

---

6. one and forty-seven ten-thousandths

---

7. 1.808

---

8. 7.0541

---

9. 2.638

---

10. 3.8279

---

Write in word form.

11. 4.0017

---

12. 12.683

---

13. 0.5983

---

14. 31.234

---

### Mixed Review

15.  $789 + 426$

---

16.  $710 - 268$

---

17.  $56 \div 7$

---

18.  $39 \times 4$

---

## Equivalent Decimals

Write *equivalent* or *not equivalent* to describe each pair of decimals.

1. 6.4 and 6.40

2. 2.08 and 2.008

3. 5.090 and 5.09

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. 1.0050 and 1.005

5. 3.006 and 3.060

6. 0.07 and 0.70

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write an equivalent decimal for each number.

7. 1.2

8. 3.71

9. 0.060

10. 6.200

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. 3.450

12. 4.15

13. 2.4

14. 7.30

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write the two decimals that are equivalent.

15. 3.01050

16. 0.005

17. 0.101

18. 2.808

3.01005

0.050

0.1010

2.8008

3.0105

0.0050

0.1001

2.80080

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Mixed Review

19.  $1,235 - 465$

20.  $5,605 + 2,487$

21.  $12 \times 8$

22.  $42 \div 6$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

23. Write 42,765,249 in word form.

24. Write six and seven thousand, four hundred thirty-three ten-thousandths in standard form.

\_\_\_\_\_

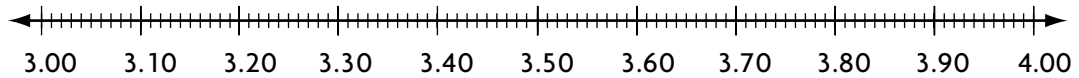
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Compare and Order Decimals

Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ . Use the number line.



1.  $3.622 \bigcirc 3.262$       2.  $3.201 \bigcirc 3.021$       3.  $3.597 \bigcirc 3.63$   
 4.  $3.309 \bigcirc 3.42$       5.  $3.545 \bigcirc 3.455$       6.  $3.152 \bigcirc 3.251$

Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

7.  $0.25 \bigcirc 0.23$       8.  $46.564 \bigcirc 46.652$       9.  $7.21 \bigcirc 7.210$   
 10.  $627.35 \bigcirc 627.53$       11.  $368.58 \bigcirc 368.85$       12.  $237.524 \bigcirc 237.254$   
 13.  $736.54 \bigcirc 736.540$       14.  $16.2 \bigcirc 16.200$       15.  $878.787 \bigcirc 878.878$

Order from least to greatest.

16. 7.11, 7.09, 7.07      17. 12.54, 12.45, 12.65      18. 3.020, 3.002, 3.200

\_\_\_\_\_

19. 17.560, 17.065, 17.056

\_\_\_\_\_

20. 2.654, 2.546, 2.456, 2.465

### Mixed Review

21.  $72 \div 8$

22. 
$$\begin{array}{r} 1,630 \\ - 472 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 1,498 \\ + 2,645 \\ \hline \end{array}$$

25. Write six and twenty-seven hundredths as a decimal and a fraction.

26. Write 8.1406 in word form.

27. Write ninety-five million, two hundred six thousand, eleven in standard form.

28. Write 31,125,624.6 in expanded form.

## Problem Solving Skill

### Draw Conclusions

Can the conclusion be drawn from the information given?

Write *yes*, *no*, or *maybe*. Explain your choice.

At the class party, Mr. Conner asked his math students to guess how many pennies were in a jar. The five students whose guesses were the closest to the actual number were: Charles 375, Juan 350, Carmen 360, Ann 373, and Bill 395. There was only one winner and that student missed by 5 pennies.

1. There were more than 344 pennies in the jar.

---

---

---

2. The actual number of pennies was between 350 and 395.

---

---

---

3. If Bill is the winner, the actual number of pennies was 400.

---

---

---

4. The actual number of pennies was not 355.

---

---

---

### Mixed Review

Solve.

5. Sal and Alice planted trees for the Forestry Service. Last weekend Sal planted 113 trees, and Alice planted 96 trees. How many more trees did Sal plant than Alice?

---

6. Cheryl wants to put a border around her window. The window is 3 feet wide and 5 feet high. How much border does she need to go around the window?

---





## Round Whole Numbers

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

1. 105,509

2. **7**,485,762

3. 34,**988**

4. 47,**567**

5. **61**,244

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. 72,8**32**

7. 9,355,7**22**

8. **563**,044

9. **428**,995

10. **27,549**,105

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Round 73,127,849 to the place named.

11. millions

12. tens

13. ten thousands

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

14. thousands

15. hundred thousands

16. ten millions

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name the place to which each number was rounded.

17. 76,145 to 76,000

18. 495,346 to 500,000

19. 5,927 to 5,930

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. 4,901,216 to 4,901,200

21. 9,347,002 to 9,350,000

22. 1,555,299 to 2,000,000

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Mixed Review

23.  $482 + 785$

24.  $761 - 282$

25.  $9 \times 7$

26.  $36 \div 6$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

27. Order the decimals 0.435, 0.043, and 0.450 from greatest to least.

28. Write the value of the bold-faced digit: 2.0**5**41.

29. Write 16.8072 in expanded form.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Estimate Sums and Differences**

Estimate by rounding.

1. 
$$\begin{array}{r} 267,335 \\ + 492,177 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 539,369 \\ + 91,136 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 555,411 \\ - 202,302 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 6,110,785 \\ - 3,385,142 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 1,665,499 \\ + 433,801 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 838,624 \\ - 157,240 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 476,428 \\ + 224,800 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 7,587,057 \\ - 3,569,882 \\ \hline \end{array}$$

9.  $324,966 + 474,022$

10.  $828,477 - 498,549$

11.  $546,239 - 196,874$

12.  $495,106 - 271,392$

13.  $3,428,687 + 5,680,952$

14.  $281,978 + 44,477$

Estimate to compare. Write  $>$  or  $<$  for each  $\bigcirc$ .

15.  $65,322 + 24,801 \bigcirc 69,595 + 32,783$

16.  $402,602 - 159,600 \bigcirc 398,011 - 274,261$

17.  $751,493 - 112,302 \bigcirc 775,029 - 272,886$

18.  $622,367 + 92,945 \bigcirc 840,926 - 114,609$

19.  $85,493 - 32,302 \bigcirc 75,029 - 42,886$

20.  $473,163 + 50,498 \bigcirc 502,931 + 83,641$

**Mixed Review**

21. Order the numbers 3.01; 3.011; 3.0012; 3.120; and 3.110 from greatest to least.

22. Write 53.2818 in word form.

**Add and Subtract Whole Numbers**

Find the sum or difference. Estimate to check.

1. 
$$\begin{array}{r} 3,964 \\ + 2,489 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 12,033 \\ - 7,566 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 9,209 \\ - 7,644 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 5,439 \\ + 4,053 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 17,848 \\ + 24,189 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 45,178 \\ + 18,433 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 7,428 \\ - 4,119 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 39,702 \\ + 3,589 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 96,260 \\ - 45,779 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 21,816 \\ + 42,112 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 61,422 \\ + 28,919 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 42,631 \\ + 9,687 \\ \hline \end{array}$$

13.  $226 + 339 + 498$

14.  $7,018 - 965$

15.  $26,253 + 13,348$

16.  $59,607 - 23,423$

17.  $15,046 - 4,699$

18.  $41,212 + 19,309$

19.  $1,406 + 871 + 521$

20.  $91,233 - 38,877$

21.  $612 + 964 + 1,107$

**Mixed Review**

22.  $72 \div 8$

23.  $12 \times 6$

24.  $8 \times 8$

25.  $48 \div 12$

26. Name the greater number:  
5,675,893 or 5,675,983.

27. Write thirty-nine and three thousand, nine hundred forty-seven ten-thousandths in standard form.

28. Round 5,347,299 to the nearest ten thousand.

29. Write  $<$ ,  $>$ , or  $=$  in  $\bigcirc$ .

$418.8342 \bigcirc 418.8432$

**Choose a Method**

Find the sum or difference. Estimate to check.

1. 
$$\begin{array}{r} 1,216,783 \\ + 3,876,121 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 5,698,522 \\ - 4,301,056 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 5,460,900 \\ - 652,294 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 9,056,357 \\ - 410,652 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 5,677,398 \\ + 2,211,545 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 9,045,063 \\ - 904,506 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 2,260,577 \\ + 7,739,533 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 8,324,756 \\ + 593,664 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 8,366,645 \\ - 2,633,193 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 6,761,250 \\ + 8,488,329 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 31,234,329 \\ + 48,283,517 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 19,880,441 \\ - 7,582,299 \\ \hline \end{array}$$

13.  $6,088,197 - 2,870,034$     14.  $2,673,452 + 6,333,247$     15.  $8,986,899 - 3,545,999$

16.  $7,005,088 + 681,374$     17.  $4,141,114 - 371,173$     18.  $5,027,405 + 3,765,323$

**Mixed Review**

19. Order the decimals 1.0450, 1.0045, 1.1045, 1.0050, 1.0004 from least to greatest.

20. Write the decimal 498.036 in word form.

21. Round 4,**7**43,996 to the place of the bold-faced digit.22. Write  $2,000,000 + 600,000 + 8,000 + 300 + 30 + 0.08$  in standard form.

23. Name the place to which the following number was rounded: 843,907 to 844,000.

24. Write  $>$  or  $<$  for  $\bigcirc$ .

$98,311 - 40,298 \bigcirc 15,518 + 44,982$

## Problem Solving Strategy

### Use Logical Reasoning

Use logical reasoning to solve.

1. Mark, Christina, Nick, and Julio each bought a different color pencil at the bookstore. The colors were blue, red, yellow, and green. Nick's and Julio's pencils are colors on the United States' flag. Christina's pencil is bright like the sun, and Julio's is the color of the sky. Which pencil did each person buy?
2. Five students, Maria, Ivan, Leah, Julie, and Scott measured each other's heights for health class. The heights are 42, 39, 41, 37, and 39 inches. Julie is 2 inches shorter than Leah. Maria is 1 inch shorter than Scott and 2 inches taller than Leah. How tall is each student?

---

---

---

---

---

---

### Mixed Review

3. Mari scored twice as many points in the second half of the basketball game as she did in the first half. She scored 24 points in the second half. How many points did Mari score in the whole game?
4. The Hobbs family had to travel 856 miles to return home after their vacation. In the past two days they have traveled 413 miles and 269 miles. How many more miles does the Hobbs family have to travel?
5. Marsha bought a mountain bike on sale for \$112.56 plus \$6.75 tax. The regular price was \$149.99 including tax. How much did Marsha save?
6. Last winter it snowed 12.9 cm in December, 17.4 cm in January, 16.9 cm in February, and 8.6 cm in March. In which month did the most snow fall?

---

---

---

---

---

---

**Round Decimals**Round each number to the place of the **boldfaced** digit.

1. 3.2**7**6

2. 12.**6**3

3. 0.4**8**70

4. 15.3**8**47

5. 8.**6**9

\_\_\_\_\_

6. 20.5**9**56

7. 11.**3**23

8. 7.**9**093

9. **4**.2899

10. 7.5**4**75

\_\_\_\_\_

Round 4.5227 to the place named.

11. tenths

12. thousandths

13. hundredths

14. ones

\_\_\_\_\_

Name the place to which each number was rounded.

15. 12.35 to 12.4

16. 0.4288 to 0.429

17. 9.462 to 9.46

\_\_\_\_\_

18. 5.0999 to 5

19. 4.6837 to 4.68

20. 6.29385 to 6.294

\_\_\_\_\_

**Mixed Review**

21. 
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

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

25. 
$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

26. Write 7.0051 in word form.

\_\_\_\_\_  
\_\_\_\_\_

27. Write an equivalent decimal for 6.0250.

\_\_\_\_\_

28. Order 2.37, 2.73, 2.46, and 2.64 from least to greatest.

\_\_\_\_\_

29.  $1,245 - 224$ 

\_\_\_\_\_

30. 
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

31. 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

32. 
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

33. 
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

34. 
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

**Estimate Decimal Sums and Differences**

Estimate the sum or difference. Tell which method you used.

- |  |  |  |  |  |
|--|--|--|--|--|
| 1. $\begin{array}{r} 6.45 \\ - 2.81 \\ \hline \end{array}$ | 2. $\begin{array}{r} 7.32 \\ - 5.14 \\ \hline \end{array}$ | 3. $\begin{array}{r} \$7.68 \\ + 3.52 \\ \hline \end{array}$ | 4. $\begin{array}{r} 18.07 \\ + 11.66 \\ \hline \end{array}$ | 5. $\begin{array}{r} 27.36 \\ - 15.04 \\ \hline \end{array}$ |
|--|--|--|--|--|

Estimate the sum or difference to the nearest tenth.

- |  |  |  |  |   |
|--|--|--|--|---|
| 6. $\begin{array}{r} 1.285 \\ + 0.822 \\ \hline \end{array}$ | 7. $\begin{array}{r} 2.843 \\ + 7.158 \\ \hline \end{array}$ | 8. $\begin{array}{r} 4.060 \\ - 3.724 \\ \hline \end{array}$ | 9. $\begin{array}{r} 6.341 \\ - 1.636 \\ \hline \end{array}$ | 10. $\begin{array}{r} 2.578 \\ - 0.372 \\ \hline \end{array}$ |
|--|--|--|--|---|

Estimate to compare. Write  $<$  or  $>$  in each  $\bigcirc$ .

- |  |  |
|--|--|
| 11. $7.21 - 5.56 \bigcirc 6.89 - 2.34$     | 12. $4.73 + 3.29 \bigcirc 5.32 + 2.39$     |
| 13. $9.213 + 4.764 \bigcirc 8.345 + 6.754$ | 14. $36.84 - 15.49 \bigcirc 58.94 - 37.99$ |
| 15. $45.76 + 21.84 \bigcirc 32.98 + 34.05$ | 16. $52.85 + 34.76 \bigcirc 46.34 + 39.82$ |
| 17. $9.034 - 4.571 \bigcirc 7.562 - 2.199$ | 18. $6.045 - 2.374 \bigcirc 8.461 - 5.921$ |

**Mixed Review**

- |  |  |
|--|--|
| 19. Write an equivalent decimal for 13.48.<br>_____  | 20. Round 34.6487 to the nearest hundredth.<br>_____   |
| 21. Find the value of $n$ in $47 + n = 185$ .<br>_____   | 22. Evaluate $125 + n$ if $n = 67$ .<br>_____  |
| 23. Which 5 has the least value?<br><br>A 2.519                      C 10.259<br>B 5.189                      D 13.075 | 24. Which number is twelve million, two thousand written in standard form?<br><br>F 12,200,000              H 1,202,200<br>G 12,002,000              J 1,200,200 |

## Add and Subtract Decimals

Find the sum or difference. Estimate to check.

$$\begin{array}{r} 1. \quad 2.7 \\ + 1.1 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 7.568 \\ + 3.405 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 42.35 \\ \quad 6.81 \\ + 9.47 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 11.79 \\ + 15.02 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 13.75 \\ \quad 4.31 \\ + 2.10 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 7.5 \\ + 2.3 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 6.38 \\ \quad 8.12 \\ + 13.52 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 4.054 \\ + 7.285 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 22.35 \\ + 11.86 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 3.817 \\ \quad 6.194 \\ + 5.417 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 8.59 \\ - 2.34 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 9.8 \\ - 2.3 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 6.27 \\ - 0.83 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 12.362 \\ - 8.18 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 10.98 \\ - 1.29 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 3.1 \\ - 1.7 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 6.14 \\ - 4.81 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 15.09 \\ - 8.73 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 39.47 \\ - 22.29 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 68.17 \\ - 32.51 \\ \hline \end{array}$$

$$21. \quad 22.12 - 6.78$$

$$22. \quad 21.599 - 17.369$$

$$23. \quad 8.376 - 2.109$$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

$$24. \quad 10.05 + 2.78$$

$$25. \quad 678 + 3.410$$

$$26. \quad 8.9 + 7.25 + 5.42$$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

27. Round 24.579 to the nearest hundredth.

\_\_\_\_\_

28.  $45,681 + 98,810$

\_\_\_\_\_

29. Order 12.1, 12.34, 12.43, and 12.5 from greatest to least.

\_\_\_\_\_

30. Which is greater, twenty-seven thousandths or fourteen hundredths?

\_\_\_\_\_

$$\begin{array}{r} 31. \quad 739 \\ \quad 621 \\ + 667 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 7,232 \\ \quad \quad 946 \\ + \quad 31 \\ \hline \end{array}$$

$$\begin{array}{r} 33. \quad 2,780 \\ \quad 9,621 \\ + 3,221 \\ \hline \end{array}$$

$$\begin{array}{r} 34. \quad 8,869 \\ \quad 4,500 \\ + 399 \\ \hline \end{array}$$



**Zeros in Subtraction**

Find the difference.

1. 
$$\begin{array}{r} 2.5 \\ - 0.8 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 3.4 \\ - 3.1 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 2.04 \\ - 1.7 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 3.6 \\ - 2.7 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 3.5 \\ - 1.04 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 1.6 \\ - 0.8 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 4.8 \\ - 4.2 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 3.07 \\ - 2.8 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 4.2 \\ - 3.8 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 6.7 \\ - 2.02 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 3.87 \\ - 1.362 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 2.7 \\ - 1.824 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 5.426 \\ - 2.56 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 12.507 \\ - 4.315 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 10.069 \\ - 2.253 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 4.68 \\ - 2.157 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 3.2 \\ - 2.451 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 7.264 \\ - 3.49 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 16.852 \\ - 8.23 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 17.57 \\ - 13.154 \\ \hline \end{array}$$

21.  $2.06 - 1.17 = \underline{\hspace{2cm}}$

22.  $1.7 - 0.763 = \underline{\hspace{2cm}}$

23.  $2.85 - 1.9 = \underline{\hspace{2cm}}$

24.  $3.7 - 2.68 = \underline{\hspace{2cm}}$

25.  $2.4 - 1.468 = \underline{\hspace{2cm}}$

26.  $3.1 - 2.51 = \underline{\hspace{2cm}}$

27.  $3.68 - 1.892 = \underline{\hspace{2cm}}$

28.  $5.2 - 3.181 = \underline{\hspace{2cm}}$

29.  $6.42 - 3.374 = \underline{\hspace{2cm}}$

30.  $4.21 - 2.362 = \underline{\hspace{2cm}}$

31.  $7.3 - 4.226 = \underline{\hspace{2cm}}$

32.  $5.69 - 2.473 = \underline{\hspace{2cm}}$

**Mixed Review**

For 33–35, use the table.

33. The maximum speeds of animals over one-quarter mile varies greatly. What is the difference between the fastest and the slowest animal?

\_\_\_\_\_

34. How much faster is a greyhound than a human?

\_\_\_\_\_

SPEEDS OF ANIMALS	
Animal	Speed
Quarter horse	47.5 mph
Greyhound	39.35 mph
Human	27.89 mph
Snail	0.03 mph

35. In the snail's speed, what is the place value of the 3?

\_\_\_\_\_

## Problem Solving Skill

### Estimate or Find Exact Answer

Decide whether you need an exact answer or an estimate. Then solve.

1. Ben received \$10.00 for doing chores. He wants to buy some cards for \$2.89, an action figure for \$4.99, and a comic book for \$1.79. Does he have enough to pay for all three items?  
\_\_\_\_\_
2. Yasmin received \$50.00 for her birthday. She wants to buy a sweater for \$13.99, a necklace for \$14.95, and shoes for \$19.98. How much change will she receive?  
\_\_\_\_\_

Kathy wants to buy some roses for \$6.99, some potting soil for \$3.98, and a ceramic pot for \$7.95. She has \$20.00.

3. Which question about Kathy's shopping can be answered with an estimate?  
**A** Does she have enough money for all 3 things?  
**B** How much will she pay in all?  
**C** How much change will she get?  
**D** Which item costs the least?
4. Which question represents Kathy's change?  
**F**  $\$18.92 - \$14.94 = \$3.98$   
**G**  $\$6.99 + \$3.98 + \$7.95 = \$18.92$   
**H**  $\$20 - \$18.92 = \$1.08$   
**J**  $\$20 - \$1.08 = \$18.92$

### Mixed Review

Solve.

5. Walt bought a CD player on sale for \$99.95 plus \$4.99 tax. The regular price was \$149.99 including tax. How much did Walt save?  
\_\_\_\_\_
6. Emma spent \$4 on cards and \$18 on a sweater. Emma has \$9 left. How much did Emma begin with?  
\_\_\_\_\_
7. In an even 2-digit number, the second digit is 3 times the first. What is the number?  
\_\_\_\_\_
8. Don is a cashier. When he calculates the amount of change, does he want an estimate or the exact answer?  
\_\_\_\_\_

## Expressions and Variables

Write an expression. Find the value.

1. Mark had 6 books. He bought 5 more.

\_\_\_\_\_

2. Sara baked 9 cupcakes. Her sister ate 3 of them.

\_\_\_\_\_

3. Lillian got 3 letters in the mail. The next day she got 7 more.

\_\_\_\_\_

4. Luke had 15 grapes in his lunch. He gave away 4 of them.

\_\_\_\_\_

Write an expression with a variable. Explain what the variable represents.

5. TJ had 14 pet fish. He bought some more.

\_\_\_\_\_

\_\_\_\_\_

6. Alex picked 25 apples. He ate some.

\_\_\_\_\_

\_\_\_\_\_

Find the value of the expression.

7.  $n + 37$  if  $n$  is 16

\_\_\_\_\_

8.  $234 + n$  if  $n$  is 66

\_\_\_\_\_

For 9–10, choose the expression for each situation.

9. Joy rode down 5 floors on the elevator, and then rode up 3 floors.

**A**  $f - 5 + 3$       **C**  $5 + 3 = f$

**B**  $f + 5 - 3$       **D**  $f - 5 = 3$

10. Kim ate 3 of the 12 cookies, and then baked some more.

**F**  $3 + 12 + n$       **H**  $12 - n - 3$

**G**  $12 - 3 + n$       **J**  $9 + 3 + n$

## Mixed Review

11. Use mental math to find the sum.  
 $10 + 60 + 200 + 10000$

\_\_\_\_\_

12. Write a number between 1.0 and 1.4

\_\_\_\_\_

## Write Equations

Write an equation. Explain what the variable represents.

1. Rick wants to read 52 books this year. He has already read 24 books. How many more should he read?

---

---

2. Jon saw 24 animals at the pet store. Fourteen were dogs and 3 were hamsters. How many other kinds of animals did he see?

---

---

3. There were 38 students in the choir. After 3 of the students moved away and 10 new students joined, how many students were in choir?

---

---

4. The buses departed with 39 students aboard. There were 32 students who waited for another bus. How many students are riding the buses?

---

---

5. Seven people joined the soccer team. The rest joined the softball team. There were 20 people that joined either the soccer or softball team. How many people joined the softball team?

---

---

---

6. The theater group performed on Friday and Saturday nights. Three hundred and twenty four attended on Friday, and 33 more attended on Saturday. How many people saw the show?

---

---

---

On a separate sheet of paper, write a problem for the equation. State what the variable  $n$  represents.

7.  $54 - n = 24$

8.  $n + 20 = 70$

9.  $5 + n - 3 = 10$

10.  $4 + n = 12$

11.  $80 + n = 100$

12.  $n + 36 = 80$

### Mixed Review

13.  $23 + 12$  \_\_\_\_\_ 14.  $56 + 12$  \_\_\_\_\_ 15.  $73 + 12$  \_\_\_\_\_ 16.  $90 - 80$  \_\_\_\_\_

17.  $34 - 23$  \_\_\_\_\_ 18.  $15 + 73$  \_\_\_\_\_ 19.  $45 - 34$  \_\_\_\_\_ 20.  $23 + 32$  \_\_\_\_\_

### PW22 Practice

## Solve Equations

Write which of the numbers 4, 8, or 12 is the solution of the equation.

1.  $6 + n = 14$

2.  $40 - n = 28$

3.  $n + 58 = 62$

4.  $n - 6 = 6$

\_\_\_\_\_

Use mental math to solve each equation. Check your solution.

5.  $23 + n = 30$

6.  $100 - n = 60$

7.  $30 + n = 50$

8.  $n - 10 = 5$

\_\_\_\_\_

Solve the equation. Check your solution.

9.  $29 - n = 22$

10.  $n + 15 = 55$

11.  $60 - n = 2$

12.  $14 + n = 20$

\_\_\_\_\_

13.  $7 + n = 16$

14.  $42 - n = 26$

15.  $80 - n = 69$

16.  $6 + n = 32$

\_\_\_\_\_

17.  $46 + n = 59$

18.  $n - 16 = 9$

19.  $33 - n = 14$

20.  $(n - 5) + 8 = 23$

\_\_\_\_\_

21.  $25 + n = 40$

22.  $16 + n = 26$

23.  $26 - n = 9$

24.  $11 + (7 + n) = 24$

\_\_\_\_\_

## Mixed Review

25. What place value is the digit 7 in the number 43.567? \_\_\_\_\_

26. Order the numbers 4.578; 3.67, and 3.792 from least to greatest.

\_\_\_\_\_

27. 
$$\begin{array}{r} 37,549 \\ + 26,385 \\ \hline \end{array}$$

28. 
$$\begin{array}{r} 364,339 \\ - 235,188 \\ \hline \end{array}$$

29. 
$$\begin{array}{r} \$31.04 \\ - 16.85 \\ \hline \end{array}$$

30. 
$$\begin{array}{r} 34,600 \\ + 18,396 \\ \hline \end{array}$$

31. 
$$\begin{array}{r} 17.201 \\ - 12.009 \\ \hline \end{array}$$

32. 
$$\begin{array}{r} 130.7907 \\ - 59.6010 \\ \hline \end{array}$$

33. 
$$\begin{array}{r} 819.27 \\ + 222.35 \\ \hline \end{array}$$

34. 
$$\begin{array}{r} 167.31 \\ + 49.99 \\ \hline \end{array}$$

## Use Addition Properties

Name the addition property used in each equation.

1.  $(3 + 1) + 6 = 3 + (1 + 6)$

\_\_\_\_\_

2.  $20 + 5 = 5 + 20$

\_\_\_\_\_

3.  $427 + 0 = 427$

\_\_\_\_\_

4.  $50 + (2 + 3) = (50 + 2) + 3$

\_\_\_\_\_

5.  $8 + 0 = 8$

\_\_\_\_\_

6.  $12 + 4 = 4 + 12$

\_\_\_\_\_

7.  $1.5 + (8.5 + 6) = (1.5 + 8.5) + 6$

\_\_\_\_\_

8.  $3,486 + 0 = 3,486$

\_\_\_\_\_

Find the value of  $n$ . Identify the addition property used.

9.  $3 + 12 = n + 3$

\_\_\_\_\_

10.  $0 + n = 49$

\_\_\_\_\_

11.  $(23 + 4) + 2 = 23 + (4 + n)$

\_\_\_\_\_

12.  $15.5 + (3.5 + 10) = (15.5 + n) + 10$

\_\_\_\_\_

13.  $58,454 + n = 58,454$

\_\_\_\_\_

14.  $14 + 16 = 16 + n$

\_\_\_\_\_

Name the addition property used in each equation.

15.  $c + 0 = c$

\_\_\_\_\_

16.  $a + b = b + a$

\_\_\_\_\_

17.  $x + (y + z) = (x + y) + z$

\_\_\_\_\_

18.  $n + r = r$

\_\_\_\_\_

## Mixed Review

19.  $34 \times 3$  \_\_\_\_\_

20.  $45 \times 2$  \_\_\_\_\_

21.  $12 \times 2 \times 4$  \_\_\_\_\_

22.  $45 \times 4$  \_\_\_\_\_

23.  $67 \times 2$  \_\_\_\_\_

24.  $78 \times 12$  \_\_\_\_\_

## PW24 Practice

## Problem Solving Skill

### Use a Formula

Use a formula to solve.

1. Maria's classroom is 22 feet long and 25 feet wide. How much paper is needed to make a border around the entire classroom?  
\_\_\_\_\_
2. The perimeter of a pentagon is 94 yards. The sides measure 10 yards, 15 yards, 22 yards, 30 yards, and  $n$  yards. What is the measurement of the fifth side?  
\_\_\_\_\_
3. Find the perimeter of a triangle. The sides measure 8 feet, 6 feet, and 6 feet.  
\_\_\_\_\_
4. The school's rectangular garden is 12 feet long and 14 feet wide. How much fence is needed to enclose the garden?  
\_\_\_\_\_

Margie walks a total of 15 miles per week. She walks a total of 6 days per week.

5. Which shows how to find the number of miles she walks per day?  
**A**  $15 \times 6 = n$       **C**  $15 + n = 6$   
**B**  $15 \div 6 = n$       **D**  $15 - 6 = n$
6. What does  $n$  equal in problem 5?  
**F** 9 miles      **H** 2.3 miles  
**G** 2.5 miles      **J** 90 miles

### Mixed Review

7. Write an expression for this sentence: Mike had 15 potato chips and gave some away. \_\_\_\_\_
8. Name the addition property shown:  $27 + 0 = 27$ . \_\_\_\_\_
9. Round the number 3.789 to the nearest tenth. \_\_\_\_\_
10. Stacey gave 4 pencils to each of 6 friends. How many pencils did she give away to her friends?  
\_\_\_\_\_
11. Melba had 4 choices for snacks and 3 choices for drinks. How many different combinations of snacks and drinks could she have?  
\_\_\_\_\_

## Write and Evaluate Expressions

Write an expression. If you use a variable, tell what it represents.

- |   |  |  |
|---|--|--|
| 1. Zachary has 3 cases filled with CDs. Each case holds 24 CDs. | 2. Janet was babysitting 3 children at the playground and 4 more came. | 3. Mrs. Smith canned 20 jars of peaches each day from Monday through Friday. |
|---|--|--|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- |   |  |   |
|---|--|---|
| 4. The boys ate some cookies on Monday and 6 more on Tuesday. | 5. Alicia scored 3 goals in each soccer game. There were several soccer games. | 6. Bobbie had 24 pencils. He gave each of his five friends the same amount. |
|---|--|---|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- |   |  |  |
|---|--|--|
| 7. Jackie made several necklaces. She put 7 beads on each necklace. | 8. The grocer put 12 cans on each shelf. There were 6 shelves. | 9. Kerry had many baseball cards. He gave each of his 3 friends 8 cards. |
|---|--|--|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Let  $n = 7$ . Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

10.  $5 \times n \bigcirc 25 + 6$       11.  $20 \times n \bigcirc 4 \times 5 \times n$       12.  $n \times 6 \bigcirc 6 + n$

13.  $n \times 8 \bigcirc (12 + n) \times 3$       14.  $3 \times n \times 2 \bigcirc 6 \times n$       15.  $(2 \times n) + 18 \bigcirc 4 \times 9$

### Mixed Review

16. 
$$\begin{array}{r} 341,811 \\ + 148,756 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 61,507 \\ - 28,147 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 34.81 \\ + 20.09 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 12.09 \\ - 7.46 \\ \hline \end{array}$$

20.  $7 \times 4 = n$  \_\_\_\_\_      21.  $12 \times 5 = n$  \_\_\_\_\_      22.  $9 \times 7 = n$  \_\_\_\_\_



## Order of Operations

### Vocabulary

Complete.

1. A set of rules used to evaluate expressions with more than one operation is the \_\_\_\_\_.

Evaluate the expression.

2.  $4 + (2 \times 6) - 10$

\_\_\_\_\_

3.  $13 - 8 \div (2 \times 2)$

\_\_\_\_\_

4.  $20 \div 4 \times (13 - 5)$

\_\_\_\_\_

5.  $(9 \times 3) + 3 \div 1$

\_\_\_\_\_

6.  $3 \times 5 + 8 - 4$

\_\_\_\_\_

7.  $30 \div (7 + 3) \times 8$

\_\_\_\_\_

Write *correct* if the order of operations is correct. Otherwise, give the correct sequence of operations.

8.  $6 \times 4 + 3 \div 3$

Multiply, add, and then divide.

\_\_\_\_\_

9.  $15 \div (4 - 1) \times 7$

Subtract, divide, and then multiply.

\_\_\_\_\_

10.  $7 + (8 + 5) \div 5$

Add, add, and then divide.

\_\_\_\_\_

For 11–12, rewrite the expression using parentheses to get the given value for a, b, and c.

11.  $28 - 3 \times 3 + 4$

a. 23

b. 79

c. 7

\_\_\_\_\_

12.  $30 \div 5 \times 3 + 1$

a. 24

b. 19

c. 3

\_\_\_\_\_

### Mixed Review

Round each number to the place of the underlined digit.

13.  $8.\underline{4}32$

\_\_\_\_\_

14.  $16.\underline{7}39$

\_\_\_\_\_

15.  $34.62\underline{1}5$

\_\_\_\_\_

16.  $9.\underline{1}84$

\_\_\_\_\_

17.  $26.\underline{7}56$

\_\_\_\_\_

**Functions****Vocabulary**

1. A relationship between two variables in which one quantity depends on the other is a \_\_\_\_\_.

Complete the function table.

2.  $h = 7g$

$g$	5	6	7	8	9
$h$					

3.  $b = 11a$

$a$	2	3	4	5	6
$b$					

4.  $d = 9c - 6$

$c$	9	8	7	6	5
$d$					

5.  $k = 6j + 12$

$j$	0	2	4	6	8
$k$					

6.  $t = 125 - 10s$

$s$	10	8	6	4	2
$t$					

7.  $v = 20 + 3u$

$u$	12	9	6	3	0
$v$					

8.  $f = 45 - 4e + 1$

$s$	1	3	6	8	9
$t$					

9.  $r = 70 + 6q - 8$

$u$	8	7	5	3	2
$v$					

Use the function. Find the output,  $y$  for each input,  $x$ .

10.  $y = 26 - 4x + 2$  for  $x = 0, 3, 6$

11.  $y = 2x + 6$  for  $x = 10, 12, 14$

**Mixed Review**

Find the sum or difference. Estimate to check.

12. 
$$\begin{array}{r} 3.27 \\ 4.063 \\ + 7.941 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 8.04 \\ - 2.53 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 17.1 \\ - 6.075 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 5.003 \\ 1.964 \\ + 12.37 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 26.03 \\ - 8.8 \\ \hline \end{array}$$

17. Order 6.021, 6.201, 6.102, and 6.210 from *least* to *greatest*.

18. Order 0.9403, 0.439, 0.493, and 0.394 from *greatest* to *least*.

## Problem Solving Strategy

### Write an Equation

Write and solve an equation for each problem. Explain what the variable represents.

1. Mary ordered 4 chicken salads to take home for dinner. Her total bill came to \$24. How much was each salad?

---

---

2. Marcus ran the same number of miles every day for ten days. He ran a total of 120 miles. How many miles did Marcus run each day?

---

---

3. Steve completed some homework papers on Monday. On Tuesday he finished 6 papers, twice what he did on Monday. How many did he do on Monday?

---

---

4. Martin rode his bicycle for a total of 140 miles. It took him 7 hours. If he rode the same number of miles each hour, how many miles did he travel every hour?

---

---

### Mixed Review

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

6. 
$$\begin{array}{r} 43 \\ - 16 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 62 \\ - 8 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 91 \\ - 22 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 70 \\ - 11 \\ \hline \end{array}$$

10. Two numbers have a difference of 10 and the sum of 34. What are the numbers?

---

11. Dallas Fort Worth Airport had 678,492 passengers this year. Dallas Fort Worth had 26,239 more passengers than O'Hare. How many passengers did O'Hare airport have?

---

## Use Multiplication Properties

Solve the equation. Identify the property used.

1.  $17 \times a = 23 \times 17$

\_\_\_\_\_

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

\_\_\_\_\_

3.  $n \times 1 = 240$

\_\_\_\_\_

4.  $340 \times b = 0$

\_\_\_\_\_

5.  $112 \times 13 = n \times 112$

\_\_\_\_\_

6.  $8 \times (y \times 31) = (8 \times 7) \times 31$

\_\_\_\_\_

7.  $71 \times k = 71$

\_\_\_\_\_

8.  $(z \times 14) \times 8 = 9 \times (14 \times 8)$

\_\_\_\_\_

9.  $65 \times 0 = h$

\_\_\_\_\_

10.  $28 \times 6 = 6 \times c$

\_\_\_\_\_

Identify the property shown.

11.  $16 \times p = 16$

\_\_\_\_\_

12.  $(y \times p) \times t = y \times (p \times t)$

\_\_\_\_\_

13.  $r \times s = s \times r$

\_\_\_\_\_

14.  $b \times 0 = 0$

\_\_\_\_\_

### Mixed Review

15. 
$$\begin{array}{r} 4.482 \\ + 6.157 \\ \hline \end{array}$$

\_\_\_\_\_

16. 
$$\begin{array}{r} 18.2546 \\ - 8.6207 \\ \hline \end{array}$$

\_\_\_\_\_

17. 
$$\begin{array}{r} 159,402 \\ - 61,089 \\ \hline \end{array}$$

\_\_\_\_\_

18. 
$$\begin{array}{r} 618,816 \\ + 372,452 \\ \hline \end{array}$$

\_\_\_\_\_

Write *equivalent* or *not equivalent* to describe each pair of decimals.

19. 2.103 and 2.130

\_\_\_\_\_

20. 6.04 and 6.040

\_\_\_\_\_

21. 5.015 and 5.150

\_\_\_\_\_



## The Distributive Property

### Vocabulary

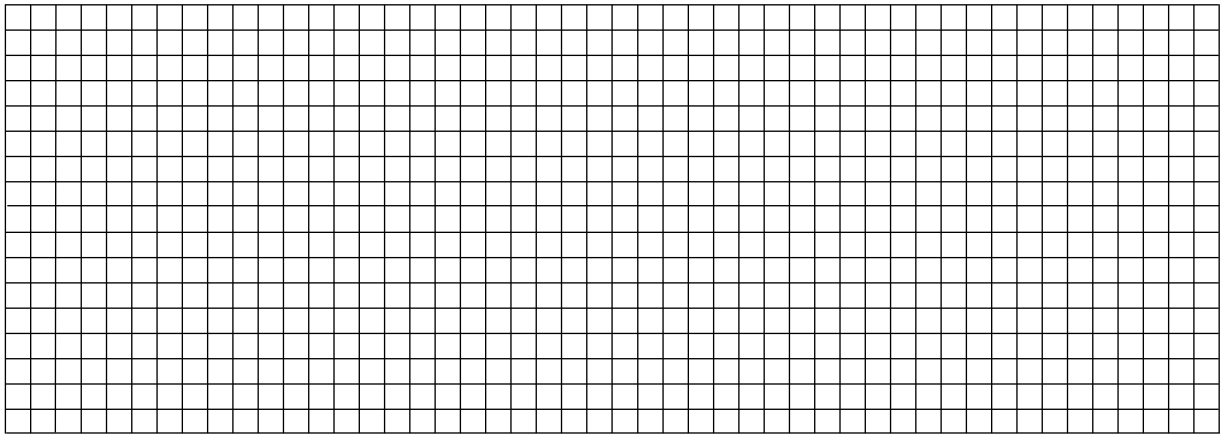
Fill in the blanks.

1. The \_\_\_\_\_ allows you to break apart numbers to make them easier to multiply.

Use the grid below to find the product.

2.  $10 \times 17 =$

3.  $15 \times 14 =$



Use the Distributive Property to restate each expression. Find the product.

4.  $12 \times 18$

5.  $20 \times 23$

6.  $30 \times 33$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Restate the expression using the Distributive Property. Then find the value of the expression.

7.  $6 \times (9 + n)$  if  $n$  is 30

8.  $7 \times (n + 5)$  if  $n$  is 50

9.  $n \times (8 + 60)$  if  $n$  is 3

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

Find the value of  $\blacksquare$ .

10.  $7 + \blacksquare = 4 + 32$  \_\_\_\_\_

11.  $\blacksquare + 19 = 22 + 14$  \_\_\_\_\_

## Collect and Organize Data

### Vocabulary

- The \_\_\_\_\_ is the difference between the greatest and least numbers in a set of data.
- The \_\_\_\_\_ is a running total of the data that has been recorded.

For 3–6, use the frequency table.

3. How many fifth graders bought a pencil in Week 1?

\_\_\_\_\_

in Week 4?

\_\_\_\_\_

4. By Week 3, how many fifth graders had bought a pencil?

\_\_\_\_\_

5. How many fifth graders bought pencils during the 4 weeks?

\_\_\_\_\_

FIFTH-GRADE PENCIL SALES		
Week	Frequency (Number of Pencils)	Cumulative Frequency
1	17	17
2	15	32
3	12	44
4	19	63

6. What is the range of the number of fifth graders who bought a pencil each week?

\_\_\_\_\_

Find the range for each set of data.

7. 2, 5, 12, 7, 9

\_\_\_\_\_

8. 63, 51, 67, 48, 56

\_\_\_\_\_

9. 110, 121, 145, 116, 136

\_\_\_\_\_

### Mixed Review

10. 
$$\begin{array}{r} 17 \\ \times 5 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 29 \\ \times 6 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 44 \\ \times 9 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 103 \\ \times 7 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 422 \\ \times 7 \\ \hline \end{array}$$

## Find the Mean

### Vocabulary

- The \_\_\_\_\_ of a group of numbers can be found by adding all of the data and then dividing by the number of addends.
- Write the steps used to find the mean of a set of data.

\_\_\_\_\_

Find the mean for each set of data.

3. 2, 8, 3, 8, 4

\_\_\_\_\_

4. 30, 10, 20, 10, 10

\_\_\_\_\_

5. \$5, \$8, \$9, \$14

\_\_\_\_\_

6. 2, 4, 4, 4, 6, 7, 8

\_\_\_\_\_

7. 3, 8, 21, 22, 36

\_\_\_\_\_

8. 52, 97, 101, 118

\_\_\_\_\_

9. 115, 110, 120, 100, 100

\_\_\_\_\_

10. 220, 180, 160, 200, 160

\_\_\_\_\_

Use the given mean to find the missing number in each data set.

11. 12, ■, 17; mean: 14

\_\_\_\_\_

12. 7, 8, 8, ■; mean: 8

\_\_\_\_\_

13. 1, 1, 2, 4, 5, ■, 10, 10; mean: 5

\_\_\_\_\_

14. 76, 77, 77, ■, 86, 88, 91; mean: 82

\_\_\_\_\_

### Mixed Review

15. 
$$\begin{array}{r} 64,578.903 \\ + 1,722,354.3 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} \$169,468.00 \\ - 73,294.00 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 727.9648 \\ - 130.0070 \\ \hline \end{array}$$

## Find the Median and Mode

### Vocabulary

- The \_\_\_\_\_ is the middle number when the data are arranged in order.
- The \_\_\_\_\_ is the number or numbers that occurs most often in a set of data.

Find the median and the mode for each set of data.

3.

Julian's Test Scores							
Test	1	2	3	4	5	6	7
Score	86	98	98	85	87	92	89

4.

Students' Heights					
Name	Rose	Sally	Hank	John	Raj
Inches	57	53	55	56	57

5.

Baseball Card Collection					
Name	Sam	Jen	Tad	Phil	Li
Number	300	280	320	280	340

6.

Magazines Sold							
Week	1	2	3	4	5	6	7
Number	180	150	175	160	225	190	225

### Mixed Review

7.  $4 \overline{)2,636}$

8.  $8 \overline{)7,978}$

9.  $4 \overline{)1,102}$

10.  $8 \overline{)760}$

11. 
$$\begin{array}{r} 27 \\ 31 \\ + 19 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 34 \\ 99 \\ + 26 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 18 \\ 19 \\ + 17 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 58 \\ 20 \\ + 30 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 82 \\ 69 \\ + 49 \\ \hline \end{array}$$





## Problem Solving Strategy

### Make a Graph

#### Vocabulary

1. A \_\_\_\_\_ organizes data by place value.
- 

Make a graph to solve.

2. During science class the students recorded the height of their plants in centimeters. The heights were: 10, 12, 12, 13, 15, 18, 20, 21, 24, 36, 36, 38, 40.

a. Do the plants usually grow in the 10's, 20's, 30's, or 40's?

\_\_\_\_\_

b. What is the range of the data?

\_\_\_\_\_

c. What is the median?

\_\_\_\_\_

d. What is the mode?

\_\_\_\_\_

3. Mrs. Hill's students are doing a project about their grandparents' lives. Part of the project is to record the ages of their grandparents. The students list the following ages: 51, 53, 55, 55, 60, 61, 63, 67, 73, 75, 80.

a. What is the mean of their grandparents' ages?

\_\_\_\_\_

b. What is the range of the data?

\_\_\_\_\_

c. What is the median?

\_\_\_\_\_

d. What is the mode?

\_\_\_\_\_

#### Mixed Review

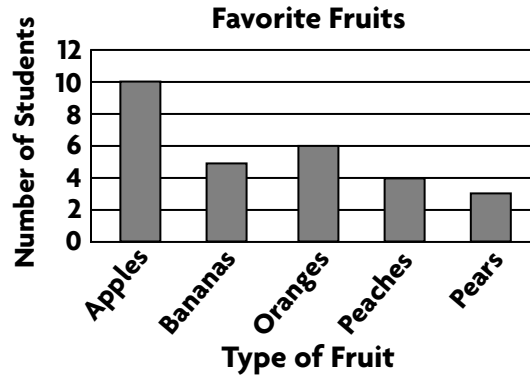
Find the mean.

4. 22, 23, 59, 61, 65 \_\_\_\_\_

5. 88, 88, 89, 91, 89 \_\_\_\_\_

## Analyze Graphs

For 1–3, use the bar graph.



1. Mark's class recorded their favorite fruits in a bar graph. Which type of fruit is most popular? How many students chose that fruit?

\_\_\_\_\_

2. How many more students chose apples than peaches?

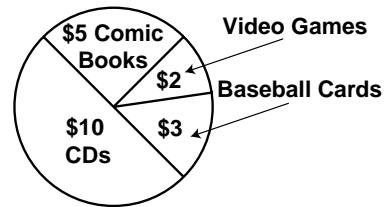
\_\_\_\_\_

3. How many students recorded their favorite fruits?

\_\_\_\_\_

For 4–6, use the circle graph.

**Steve's Monthly Entertainment Expenses**



4. Steve made a circle graph to display his monthly expenses. What does Steve spend the least amount of money on each month? What does he spend the most on?

\_\_\_\_\_

5. On what two items does Steve spend about the same amount each month?

\_\_\_\_\_

6. How much does Steve spend in a month on comic books and baseball cards?

\_\_\_\_\_

## Mixed Review

Solve.

7.  $14 + n = 56$

\_\_\_\_\_

8.  $27 - n = 1$

\_\_\_\_\_

Write in standard form.

9. seven and seven hundred twelve thousandths

\_\_\_\_\_

10. forty-one and three hundred eighty-seven ten-thousandths

\_\_\_\_\_

## Choose a Reasonable Scale

### Vocabulary

Write the vocabulary word that best describes the part of a graph.

- a series of numbers placed at fixed distances \_\_\_\_\_
- the difference between one number and the next on the scale \_\_\_\_\_

Choose a, b, c, or d as the most reasonable interval for the data.

- |                                 |                                |       |
|---------------------------------|--------------------------------|-------|
| 3. 25, 50, 70, 75, 100<br>_____ | 4. 2, 4, 1, 7, 5<br>_____      | a. 25 |
|                                 |                                | b. 5  |
| 5. 5, 10, 30, 40, 20<br>_____   | 6. 15, 25, 35, 20, 40<br>_____ | c. 10 |
|                                 |                                | d. 1  |

Circle the letter of the more reasonable scale for the data.

- | 7.             | <b>FIFTH-GRADE SURVEY</b>  | a. 60          | b. 50              | 8.  | <b>CAKE SALE</b> | a. 25 | b. 80 |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
|----------------|--|----------------|--------------------|-----|------------------|-------|-------|-------|----|--------|----|-------|----|----|----|--|--|------|-------------|---|----|---|---|---|----|---|----|---|----|----|----|
|                | <table border="1"> <thead> <tr> <th>Favorite Color</th> <th>Number of Students</th> </tr> </thead> <tbody> <tr> <td>Red</td> <td>40</td> </tr> <tr> <td>Blue</td> <td>50</td> </tr> <tr> <td>Green</td> <td>20</td> </tr> <tr> <td>Yellow</td> <td>10</td> </tr> <tr> <td>Other</td> <td>10</td> </tr> </tbody> </table> | Favorite Color | Number of Students | Red | 40               | Blue  | 50    | Green | 20 | Yellow | 10 | Other | 10 | 40 | 40 |  | <table border="1"> <thead> <tr> <th>Week</th> <th>Number Sold</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10</td> </tr> <tr> <td>2</td> <td>5</td> </tr> <tr> <td>3</td> <td>15</td> </tr> <tr> <td>4</td> <td>12</td> </tr> <tr> <td>5</td> <td>20</td> </tr> </tbody> </table> | Week | Number Sold | 1 | 10 | 2 | 5 | 3 | 15 | 4 | 12 | 5 | 20 | 20 | 60 |
| Favorite Color | Number of Students   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Red            | 40   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Blue           | 50   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Green          | 20   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Yellow         | 10   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Other          | 10   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| Week           | Number Sold  |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| 1              | 10   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| 2              | 5  |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| 3              | 15   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| 4              | 12   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
| 5              | 20   |                |                    |     |                  |       |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
|                |  | 20             | 30                 |     |                  | 15    | 40    |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
|                |  | 0              | 20                 |     |                  | 10    | 20    |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
|                |  |                | 10                 |     |                  | 5     | 0     |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |
|                |  |                | 0                  |     |                  | 0     |       |       |    |        |    |       |    |    |    |  |  |      |             |   |    |   |   |   |    |   |    |   |    |    |    |

### Mixed Review

For 9–10, use the table.

9. What is a reasonable scale for the data?

\_\_\_\_\_

10. How many students were surveyed?

\_\_\_\_\_

SNACK SURVEY	
Favorite Snack	Number of Students
Oatmeal cookies	18
Sandwich	20
Fruit	10

## Problem Solving Strategy

### Make a Graph

Make a graph to solve.

1.

New Mascot		
Wolf	Bear	Lion
160	140	100

Mr. Brown, the principal, surveyed students to find out which mascot they wanted. He organized the data in a table. What graph should he use to display the data? What is a reasonable interval? scale? Make the graph.

---

2.

Homework Pages Assigned					
Month	Sep	Oct	Nov	Dec	Jan
Number of Pages	40	60	80	40	80

Mr. Flores kept track of the number of homework pages assigned to the class for 5 months. He recorded the data in a table. What graph or plot should he use to display the data? What is a reasonable interval? scale? Make the graph.

---

### Mixed Review

3. Ben sold newspaper subscriptions. He sold 20 subscriptions on Monday and Tuesday, 15 subscriptions on Wednesday and Thursday, and 30 subscriptions on Friday. What is the mean number of subscriptions Ben sold?

---

4. Samantha saved \$35.50 to buy new clothes. She bought a shirt for \$15.80 and a pair of pants for \$12.75. How many pairs of socks priced at \$1.99 a pair can she buy?

---

5. The mean, median, and mode of 8, 5, 9, 6, 7, and  $\square$  are the same. What number is missing?

---

6. Tracey has 4 coins in her pocket. If she has \$0.46 in her pocket, what coins does she have?

---

7. 
$$\begin{array}{r} 49 \\ \times 6 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 72 \\ \times 2 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 34 \\ \times 8 \\ \hline \end{array}$$

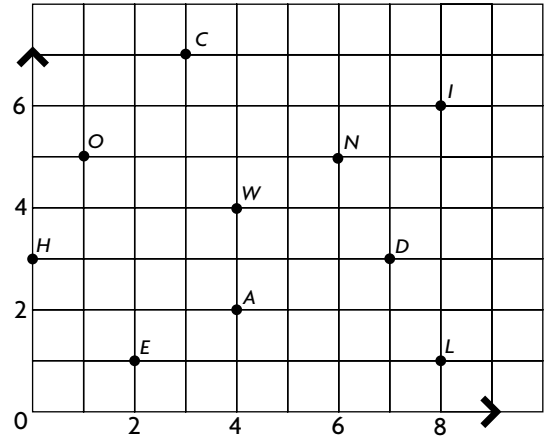
10. 
$$\begin{array}{r} 81 \\ \times 9 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 57 \\ \times 8 \\ \hline \end{array}$$

## Graph Ordered Pairs

Name the ordered pair for each point.

- |                   |                    |
|-------------------|--------------------|
| 1. <i>E</i> _____ | 2. <i>H</i> _____  |
| 3. <i>O</i> _____ | 4. <i>C</i> _____  |
| 5. <i>A</i> _____ | 6. <i>D</i> _____  |
| 7. <i>N</i> _____ | 8. <i>I</i> _____  |
| 9. <i>W</i> _____ | 10. <i>L</i> _____ |



Graph and label the following points on a coordinate grid.

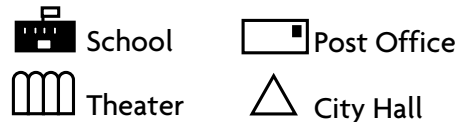
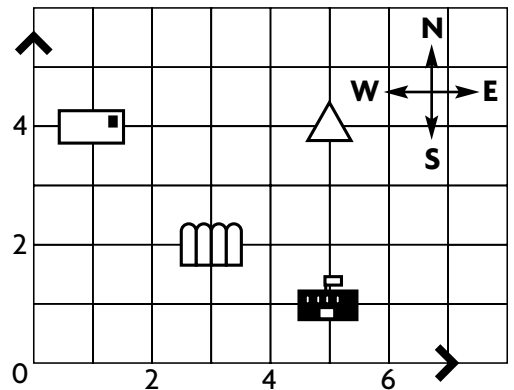
- |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|
| 11. <i>M</i> (6, 1) | 12. <i>N</i> (2, 5) | 13. <i>P</i> (3, 4) | 14. <i>R</i> (6, 3) |
| 15. <i>S</i> (4, 6) | 16. <i>A</i> (0, 5) | 17. <i>V</i> (3, 7) | 18. <i>G</i> (4, 1) |
| 19. <i>E</i> (5, 0) | 20. <i>H</i> (1, 7) | 21. <i>T</i> (2, 6) | 22. <i>Y</i> (1, 0) |

Use the map for 23–25.

23. What direction would you go to go from the School to the City Hall?
- \_\_\_\_\_

24. If each square represents one block, how many blocks is the Post Office from the Theater?
- \_\_\_\_\_

25. Give directions to go from the School to the Post Office.
- \_\_\_\_\_



## Mixed Review

- |  |   |  |
|--|---|--|
| 26. Round 4,568,299 to the nearest 10,000. | 27. $\begin{array}{r} 738,492 \\ - 586,238 \\ \hline \end{array}$ | 28. What is the value of the underlined digit?<br><u>3</u> 4,794,210 |
|--|---|--|

\_\_\_\_\_

Name \_\_\_\_\_

# Make Line Graphs

## Vocabulary

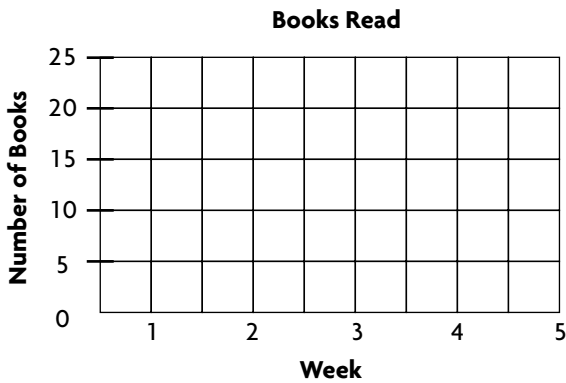
Complete.

- The \_\_\_\_\_ is the difference between the greatest and least numbers in a set of data.

Make a line graph for each set of data.

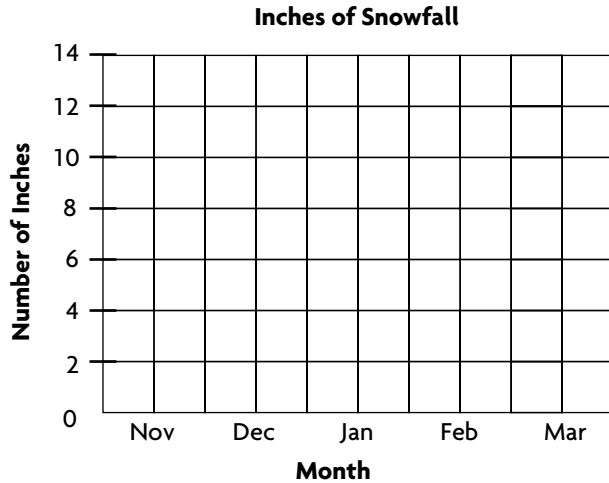
2.

Books Read					
Week	1	2	3	4	5
Number of Books	15	10	20	10	5



3.

Inches of Snowfall					
Month	Nov	Dec	Jan	Feb	Mar
Inches	4	12	8	6	2



## Mixed Review

For 4–5, use the table.

TIME SHEILA SPENDS PLAYING PIANO					
Day	Mon	Tue	Wed	Thu	Fri
Time	10 min	20 min	30 min	20 min	15 min

- What would be a reasonable scale for a line graph displaying these data?  
\_\_\_\_\_
- What are the mean, median, and mode for the time Sheila spent playing the piano?  
\_\_\_\_\_

# Histograms

## Vocabulary

Complete.

1. The \_\_\_\_\_ is a bar graph that shows the number of times data occur within intervals.

Decide which graph would better represent the data below, a bar graph or histogram. Then make each graph.

2.

Points Scored	Number of Players
21–25	13
26–30	16
31–35	12
36–40	8

3.

Favorite Month	Number of Students
December	42
June	38
August	29
July	31

4.

Grade	Number of Students
First	104
Second	135
Third	124
Fourth	144
Fifth	122

5.

Heart Rate	Number of Students
54–57	4
58–61	12
62–65	14
66–69	18
70–73	25

## Mixed Review

6.  $80,000 \times 6$

7. What is the value of the underlined digit?  
249.563

8. Write an equation to show the Property of One in multiplication.

Name \_\_\_\_\_

## Choose the Appropriate Graph

For 1–4, choose the best type of graph or plot for the data. Explain your choice.

1. monthly high temperatures for a city over a 6-month period

\_\_\_\_\_

\_\_\_\_\_

2. heights of students in a class

\_\_\_\_\_

\_\_\_\_\_

3. most popular athletic shoe brand in a class

\_\_\_\_\_

\_\_\_\_\_

4. money spent on food each week over a 5-week period

\_\_\_\_\_

\_\_\_\_\_

Draw the graph or plot that best displays each set of data.

5.

Money Earned For Trip					
Week	1	2	3	4	5
Amount	\$50	\$40	\$60	\$80	\$90

6.

Favorite TV Network					
	ABZ	CAT	DOG	ROX	CAN
Sixth Graders	5	10	20	20	30
Third Graders	20	15	15	30	5

### Mixed Review

For 7–8, use the table.

7. What type of graph would you use to display the data? Explain.

\_\_\_\_\_

8. What number of pets do the most students own?

\_\_\_\_\_

Pets Owned by Mr. Craig's Students						
Number of Pets	0	1	2	3	4	5
Number of Students	5	7	6	8	2	1

9. 
$$\begin{array}{r} 493,487 \\ + 231,147 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 946,493 \\ - 128,518 \\ \hline \end{array}$$



**Estimation: Patterns in Multiples**

Estimate each product.

1.  $5 \times 2,346$

\_\_\_\_\_

2.  $7 \times 8,943$

\_\_\_\_\_

3.  $54 \times 237$

\_\_\_\_\_

4.  $66 \times 2,159$

\_\_\_\_\_

5.  $32 \times 4,742$

\_\_\_\_\_

6.  $89 \times 3,456$

\_\_\_\_\_

7.  $54 \times 4,576$

\_\_\_\_\_

8.  $76 \times 543$

\_\_\_\_\_

9.  $54 \times 893$

\_\_\_\_\_

10.  $67 \times 238$

\_\_\_\_\_

11.  $98 \times 308$

\_\_\_\_\_

12.  $76 \times 3,480$

\_\_\_\_\_

13.  $765 \times 78$

\_\_\_\_\_

14.  $432 \times 89$

\_\_\_\_\_

15.  $567 \times 23$

\_\_\_\_\_

**Mixed Review**

16. 
$$\begin{array}{r} 78,322 \\ -66,328 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 98,754 \\ +54,672 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 309 \\ \times 23 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 715 \\ \times 16 \\ \hline \end{array}$$

20. Write in word form: 23,571

\_\_\_\_\_

21. Write in expanded form: 4,321

\_\_\_\_\_

22. Round 26.9865 to the nearest thousandth. \_\_\_\_\_

23. Round 795.8716 to the nearest hundredth. \_\_\_\_\_

## Multiply by 1–Digit Numbers

Find each product. Estimate to check.

$$\begin{array}{r} 1. \quad 7,618 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 9,853 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 43,702 \\ \times \quad 5 \\ \hline \end{array}$$

Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

$$4. \quad 7,899 \times 4 \bigcirc 1,999 \times 9$$

$$5. \quad 44,333 \times 6 \bigcirc 88,321 \times 3$$

$$6. \quad 63,809 \times 2 \bigcirc 54,902 \times 8$$

$$7. \quad 56,790 \times 2 \bigcirc 28,395 \times 4$$

For 8–11, use the table.

Item	Cost
Baseball	\$5.95
Bat	\$7.90
Hat	\$9.20
Glove	\$15.60

8. Max purchased 3 baseballs. How much did he spend?

\_\_\_\_\_

9. Jake purchased 2 gloves and a hat. How much did he spend?

\_\_\_\_\_

10. How much will Mr. Carrington spend to buy one of each item?

\_\_\_\_\_

11. The team gave a glove to each of its 9 players. How much did it cost to provide the gloves?

\_\_\_\_\_

### Mixed Review

12. Solve the equation:  $n + 7 = 15$  \_\_\_\_\_

13. Evaluate  $n + 7 - (2 \times 6)$  when  $n = 5$ . \_\_\_\_\_

14. Find the median of 44, 47, 49, 54, 67. \_\_\_\_\_

15. Find the mode of 54, 67, 82, 54, 90. \_\_\_\_\_

16. Find the mean of 34, 25, 68, 45. \_\_\_\_\_

### PW44 Practice

## Multiply by 2-Digit Numbers

Find each product. Estimate to check.

$$\begin{array}{r} 1. \quad 24 \\ \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 16 \\ \times 37 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 43 \\ \times 54 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 74 \\ \times 47 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 246 \\ \times 22 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 137 \\ \times 65 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 758 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 420 \\ \times 31 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 2,474 \\ \times 16 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 3,245 \\ \times 25 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 4,080 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 1,625 \\ \times 30 \\ \hline \end{array}$$

Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

$$13. \quad 13 \times 28 \bigcirc 25 \times 14$$

$$14. \quad 24 \times 12 \bigcirc 16 \times 18$$

$$15. \quad 123 \times 15 \bigcirc 124 \times 16$$

$$16. \quad 33 \times 45 \bigcirc 45 \times 33$$

$$17. \quad 231 \times 21 \bigcirc 213 \times 31$$

$$18. \quad 2,002 \times 34 \bigcirc 2,020 \times 23$$

### Mixed Review

19. Seth, Brian, and Mark are comparing their heights. At 52 inches, Seth is 6 inches taller than Brian. Brian is 3 inches shorter than Mark. How tall is Mark?

20. Write five hundred two and three hundred nine thousandths in standard form.

---


$$\begin{array}{r} 21. \quad 38 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 72 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 66 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 23 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 42 \\ \times 8 \\ \hline \end{array}$$

**Choose a Method**

Find the product.

1.  $408 \times 562 =$   
\_\_\_\_\_

2.  $329 \times 1,123 =$   
\_\_\_\_\_

3.  $2,147 \times 415 =$   
\_\_\_\_\_

4.  $336 \times 483 =$   
\_\_\_\_\_

5.  $212 \times 3,678 =$   
\_\_\_\_\_

6.  $4,552 \times 53 =$   
\_\_\_\_\_

7. 
$$\begin{array}{r} 1,216 \\ \times 15 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 1,714 \\ \times 49 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 2,431 \\ \times 76 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 3,239 \\ \times 64 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 4,256 \\ \times 39 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 6,274 \\ \times 95 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 1,495 \\ \times 627 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 2,501 \\ \times 251 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 6,328 \\ \times 346 \\ \hline \end{array}$$

**Mixed Review**Find the value of  $n$ .

16.  $(36 \div n) \times 20 = 120$   
\_\_\_\_\_

17.  $22 + (n - 4) = 79$   
\_\_\_\_\_

18.  $38 + n + 68.5 = 149.80$   
\_\_\_\_\_

19.  $\$12.42 \div (17 - n) = \$4.14$   
\_\_\_\_\_

20. Sophia ran the 100-meter dash in 11.36 seconds. What is the value of the 3 in her time?  
\_\_\_\_\_

21. Find the difference. Estimate to check.

$$\begin{array}{r} 78,932 \\ - 65,345 \\ \hline \end{array}$$
  
\_\_\_\_\_

## Problem Solving Skill

### Evaluate Answers for Reasonableness

Write the most reasonable answer without solving.

1. Walter prints 234,897 magazines per day in his shop. He says he prints more than 6,000,000 magazines a month. Is his answer reasonable? Explain.

---



---

2. The car dealer in town purchased 478 cars, each one costing \$19,453. He said he paid \$929,534 for the cars. Is his answer reasonable?

---

Choose the most reasonable answer without solving.

3. Eddie saves \$5 per week for a bike. After three years approximately how much did he save?
  - A \$15
  - B \$25
  - C \$500
  - D \$750
4. A mayor received about 334,000 votes from each of 3 different areas. About how many votes did he receive?
  - F 100,000 votes
  - G 111,000 votes
  - H 1,000,000 votes
  - J 1,110,000 votes

### Mixed Review

Use data from the graph to answer 5–7.

5. What was the approximate difference in numbers of male and female athletes during 1987?

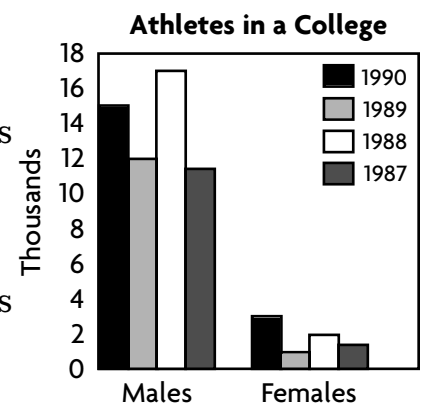
---

6. What was the approximate difference in numbers of male and female athletes during 1988?

---

7. What was the approximate total number of athletes during 1989?

---



## Multiply Decimals and Whole Numbers

Make a model to find each product.

1.  $2 \times 0.5$

\_\_\_\_\_

2.  $3 \times 0.4$

\_\_\_\_\_

3.  $2 \times 0.25$

\_\_\_\_\_

4.  $0.17 \times 3$

\_\_\_\_\_

5.  $4 \times 0.7$

\_\_\_\_\_

6.  $0.11 \times 4$

\_\_\_\_\_

7.  $3 \times 0.8$

\_\_\_\_\_

8.  $0.33 \times 2$

\_\_\_\_\_

Phillip is buying school supplies at the student book store.  
For 9–13, use the pictures to find the total cost.

9. 2 pencils, 2 erasers

\_\_\_\_\_

10. 2 markers, 1 protractor

\_\_\_\_\_

11. 3 pencils, 2 compasses

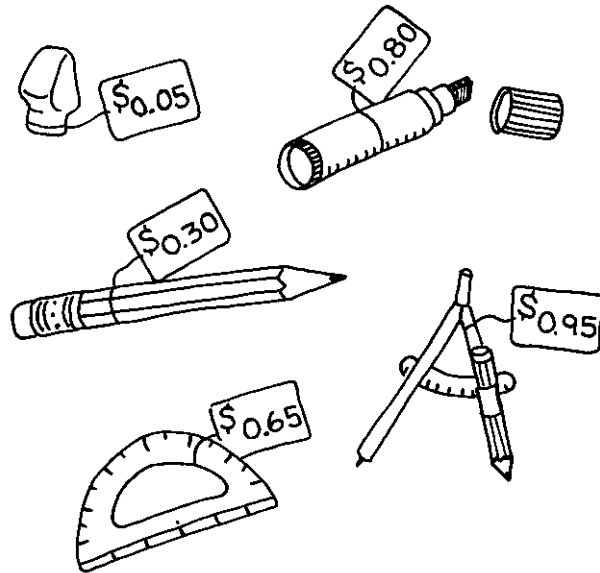
\_\_\_\_\_

12. 4 markers, 2 erasers, 1 protractor

\_\_\_\_\_

13. 3 compasses, 2 markers, 1 pencil

\_\_\_\_\_



### Mixed Review

14. Phyllis is shopping at the student bookstore. Which cost more—2 markers, or 1 compass and 2 pencils?

\_\_\_\_\_

15. Sam has \$0.36. He has 5 coins. What are they?

\_\_\_\_\_

$$\begin{array}{r} 16. \quad 335,657 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 7,612 \\ \times \quad 15 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 101,483 \\ \times \quad 50 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 492,655 \\ \times \quad 17 \\ \hline \end{array}$$

**Algebra: Patterns in Decimal Factors and Products**

Use mental math to complete.

$$1. \begin{aligned} 1 \times 0.007 &= 0.007 \\ 10 \times 0.007 &= 0.07 \\ 100 \times 0.007 &= 0.7 \\ 1,000 \times 0.007 &= \square \end{aligned}$$


---

$$2. \begin{aligned} 1 \times 0.034 &= 0.034 \\ 10 \times 0.034 &= 0.34 \\ 100 \times 0.034 &= \square \\ 1,000 \times 0.034 &= 34 \end{aligned}$$


---

$$3. \begin{aligned} 1 \times 0.0061 &= 0.0061 \\ 10 \times 0.0061 &= \square \\ 100 \times 0.0061 &= 0.61 \\ 1,000 \times 0.0061 &= \square \end{aligned}$$


---

$$4. \begin{aligned} 1 \times 0.53 &= 0.53 \\ 10 \times 0.53 &= \square \\ 100 \times 0.53 &= \square \\ 1,000 \times 0.53 &= 530 \end{aligned}$$


---

$$5. \begin{aligned} 1 \times 0.0817 &= 0.0817 \\ 10 \times 0.0817 &= \square \\ 100 \times 0.0817 &= \square \\ 1,000 \times 0.0817 &= \square \end{aligned}$$


---

$$6. \begin{aligned} 1 \times 0.49 &= 0.49 \\ 10 \times 0.49 &= \square \\ 100 \times 0.49 &= \square \\ 1,000 \times 0.49 &= \square \end{aligned}$$


---

Multiply each number by 10, by 100, and by 1,000.

$$7. 0.4$$


---

$$8. 0.16$$


---

$$9. 0.7832$$


---

$$10. \$0.17$$


---

$$11. \$1.19$$


---

$$12. 5.9173$$


---

Find the value of  $n$ .

$$13. 10 \times n = 8$$


---

$$14. 100 \times 0.625 = n$$


---

$$15. n \times 100 = 0.7$$


---

$$16. 1,000 \times 0.23 = n$$


---

$$17. 100 \times n = 50$$


---

$$18. 10 \times n = 50.3$$


---

**Mixed Review**

19. What is the place value of the digit 6 in the number 162,083?

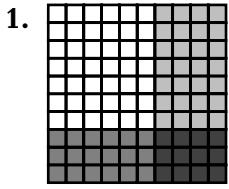
---

20. Which digits make  
11.  $\square 57 < 11.407$  true?

---

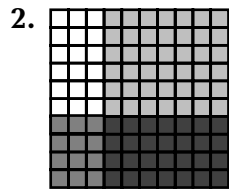
## Model Decimal Multiplication

Complete the multiplication sentence for each model.



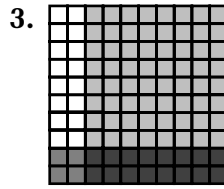
$0.3 \times 0.4 = n$

\_\_\_\_\_



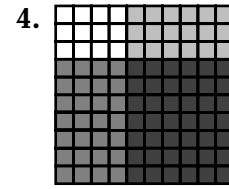
$n \times 0.7 = 0.28$

\_\_\_\_\_



$n \times 0.8 = 0.16$

\_\_\_\_\_



$0.7 \times n = 0.42$

\_\_\_\_\_

Make a model to find the product.

5.  $0.4 \times 0.6$

\_\_\_\_\_

6.  $0.1 \times 0.5$

\_\_\_\_\_

7.  $0.8 \times 0.3$

\_\_\_\_\_

8.  $0.6 \times 0.9$

\_\_\_\_\_

Find the product.

9.  $0.7 \times 0.6$  \_\_\_\_\_

10.  $0.4 \times 0.9$  \_\_\_\_\_

11.  $0.9 \times 0.3$  \_\_\_\_\_

12.  $0.8 \times 0.6$  \_\_\_\_\_

13.  $0.2 \times 0.5$  \_\_\_\_\_

14.  $0.5 \times 0.3$  \_\_\_\_\_

15.  $0.8 \times 0.5$  \_\_\_\_\_

16.  $0.1 \times 0.9$  \_\_\_\_\_

17.  $0.4 \times 0.4$  \_\_\_\_\_

18.  $0.7 \times 0.5$  \_\_\_\_\_

19.  $0.2 \times 0.6$  \_\_\_\_\_

20.  $0.6 \times 0.6$  \_\_\_\_\_

21.  $0.5 \times 0.4$  \_\_\_\_\_

22.  $0.8 \times 0.7$  \_\_\_\_\_

23.  $0.9 \times 0.5$  \_\_\_\_\_

24.  $0.6 \times 0.3$  \_\_\_\_\_

25.  $0.4 \times 0.2$  \_\_\_\_\_

26.  $0.7 \times 0.7$  \_\_\_\_\_

Find the value of  $n$ .

27.  $n \times 0.3 = 0.15$

28.  $0.7 \times n = 0.56$

29.  $n \times 0.6 = 0.36$

30.  $0.9 \times n = 0.36$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

31.  $3.6 + 4.3$

32.  $7.6 + 0.75$

33.  $16.3 + 0.07$

34.  $6.3 + 1.48$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**Place the Decimal Point**Choose the best estimate. Write *a*, *b*, or *c*.

1.  $11 \times 0.3$

- a. 3      b. 30      c. 300

\_\_\_\_\_

2.  $24 \times 0.6$

- a. 1.2      b. 12      c. 120

\_\_\_\_\_

3.  $42 \times 0.9$

- a. 4      b. 40      c. 400

\_\_\_\_\_

4.  $36 \times 0.4$

- a. 0.9      b. 6      c. 15

\_\_\_\_\_

5.  $\$0.83 \times 2$

- a. \$1.60      b. \$16.00      c. \$160.00

\_\_\_\_\_

6.  $\$0.43 \times 5$

- a. \$0.20      b. \$2.00      c. \$4.00

\_\_\_\_\_

Find the product. Estimate to check.

7.  $0.5 \times 28$

8.  $2.6 \times 3.9$

9.  $0.72 \times 317$

10.  $5.64 \times 9.7$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the product.

11.  $0.2 \times 0.6$

12.  $1.2 \times 0.7$

13.  $0.83 \times 0.29$

14.  $9.1 \times 3.7$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Copy the answer. Place the decimal point in the product.

15. 
$$\begin{array}{r} 7.2 \\ \times 4 \\ \hline 288 \end{array}$$

\_\_\_\_\_

16. 
$$\begin{array}{r} 0.58 \\ \times 7 \\ \hline 406 \end{array}$$

\_\_\_\_\_

17. 
$$\begin{array}{r} 4.218 \\ \times 0.31 \\ \hline 130758 \end{array}$$

\_\_\_\_\_

18. 
$$\begin{array}{r} 2.723 \\ \times 8.149 \\ \hline 22189727 \end{array}$$

\_\_\_\_\_

**Mixed Review**

19. What is the range of the data 12, 33, 19, 79, 44, 48?

\_\_\_\_\_

20. Evaluate  $(n \times 6) \times 4$  if  $n = 2$ .

\_\_\_\_\_

21. Write five ten thousandths as a decimal.

\_\_\_\_\_

**Zeros in the Product**

Find the product.

1.  $2 \times 0.04$

2.  $9 \times 0.007$

3.  $0.6 \times 0.07$

4.  $43.1 \times 0.03$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. 
$$\begin{array}{r} 0.008 \\ \times 7 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 0.07 \\ \times 7 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 0.004 \\ \times 13.7 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 0.065 \\ \times 0.09 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 93.27 \\ \times 0.03 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 0.0042 \\ \times 78 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 0.0061 \\ \times 0.5 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 0.008 \\ \times 0.05 \\ \hline \end{array}$$

Find the product. Round to the nearest cent.

13.  $\$0.34 \times 0.09$

14.  $\$7.18 \times 0.03$

15.  $\$0.92 \times 0.08$

16.  $\$73.62 \times 0.06$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write  $<$ ,  $>$ , or  $=$  for each  $\bigcirc$ .

17.  $0.03 \times 0.09 \bigcirc 0.3 \times 0.009$

18.  $0.07 \times 0.4 \bigcirc 0.007 \times 0.4$

\_\_\_\_\_

\_\_\_\_\_

19.  $0.45 \times 0.01 \bigcirc 0.005 \times 0.91$

20.  $0.076 \times 0.8 \bigcirc 0.08 \times 0.76$

\_\_\_\_\_

\_\_\_\_\_

**Mixed Review**

21. 
$$\begin{array}{r} 13,788 \\ + 43,791 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 77.028 \\ + 12.937 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 150.257 \\ - 73.084 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 563,072 \\ + 337,944 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 5,073 \\ + 312 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} \$194.20 \\ + \$31.57 \\ \hline \end{array}$$

27. 
$$\begin{array}{r} 91.836 \\ - 12.900 \\ \hline \end{array}$$

28. 
$$\begin{array}{r} \$421.99 \\ + \$87.02 \\ \hline \end{array}$$

**Problem Solving Skill:****Make Decisions**

For 1–4, use the information in the table.

Item	Store A	Store B	Store C
Cheese	\$0.49	\$0.33	\$0.59
Peppers	\$0.99	\$1.05	\$1.09
Sausage	\$2.59	\$2.10	\$1.99
Pepperoni	\$2.69	\$2.30	\$2.90

You are planning to make a pizza. You want one of each of the items in the table above.

1. If you could go to only one store to buy all of the items, to which store would you go? Why?

\_\_\_\_\_

2. If you could go to more than one store, what is the least you could spend?

\_\_\_\_\_

3. If you could go to only stores A and B or stores B and C, what is the least you could spend? What stores would you go to?

\_\_\_\_\_

4. It costs \$1.23 to drive to store A, \$2.44 to drive to store B, and \$1.30 to drive to store C. You can go to only one store. To which store would you go now? What is the total cost?

\_\_\_\_\_

**Mixed Review**

Multiply each number by 10, by 100, and by 1,000.

5. 0.6

\_\_\_\_\_

6. 7.2

\_\_\_\_\_

7. 0.0012

\_\_\_\_\_

8. 0.043

\_\_\_\_\_

Find the value of  $n$ .

9.  $1,024 - 718 = n$

\_\_\_\_\_

10.  $100 \times 0.4 = n$

\_\_\_\_\_

11.  $n \times 1,000 = 0.6$

\_\_\_\_\_

## Estimate Quotients

### Vocabulary

Fill in the blanks.

1. \_\_\_\_\_ are numbers that are easy to compute mentally.

Estimate the quotient. Tell what compatible numbers you used.

- |                          |                            |                             |                              |
|--------------------------|----------------------------|-----------------------------|------------------------------|
| 2. $817 \div 4$<br>_____ | 3. $462 \div 9$<br>_____   | 4. $703 \div 7$<br>_____    | 5. $492 \div 8$<br>_____     |
| 6. $281 \div 3$<br>_____ | 7. $5,391 \div 6$<br>_____ | 8. $29,537 \div 3$<br>_____ | 9. $293,765 \div 5$<br>_____ |

Estimate the quotient, using two sets of compatible numbers.

- |                            |                            |                             |                             |
|----------------------------|----------------------------|-----------------------------|-----------------------------|
| 10. $3 \overline{)144}$    | 11. $6 \overline{)1,745}$  | 12. $9 \overline{)1,538}$   | 13. $7 \overline{)47,676}$  |
| 14. $2 \overline{)24,918}$ | 15. $4 \overline{)85,576}$ | 16. $7 \overline{)799,321}$ | 17. $8 \overline{)385,678}$ |

### Mixed Review

- |  |   |  |  |   |
|--|---|--|--|---|
| 18. $\begin{array}{r} 25,294 \\ \times \quad 38 \\ \hline \end{array}$ | 19. $\begin{array}{r} 193,867 \\ \times \quad 45 \\ \hline \end{array}$ | 20. $\begin{array}{r} 3.67 \\ \times 0.05 \\ \hline \end{array}$ | 21. $\begin{array}{r} 9.28 \\ \times 0.14 \\ \hline \end{array}$ | 22. $\begin{array}{r} 72,014 \\ + 36,958 \\ \hline \end{array}$ |
| 23. $7 \overline{)69}$   | 24. $4 \overline{)83}$  | 25. $5 \overline{)73}$   | 26. $8 \overline{)36}$   | 27. $4 \overline{)95}$  |

**Divide 3-Digit Dividends**

Name the position of the first digit of the quotient.

1.  $4 \overline{)832}$

2.  $2 \overline{)417}$

3.  $7 \overline{)217}$

4.  $6 \overline{)213}$

\_\_\_\_\_

Divide.

5.  $9 \overline{)326}$

6.  $3 \overline{)235}$

7.  $6 \overline{)367}$

8.  $4 \overline{)935}$

9.  $6 \overline{)115}$

10.  $9 \overline{)504}$

11.  $7 \overline{)219}$

12.  $5 \overline{)621}$

Find the value of  $n$ .

13.  $517 \div 2 = n$

14.  $n \div 3 = 203$

15.  $785 \div n = 112 \text{ r}1$

16.  $431 \div 6 = n$

\_\_\_\_\_

17. On Friday and Saturday, 618 people attended a car show. If the same number of people went each day, how many people attended the car show on Saturday?

18. Sue drove 364 miles in 7 hours. How many miles did she drive in 1 hour?

\_\_\_\_\_

**Mixed Review**

19. 
$$\begin{array}{r} 5,862 \\ + 6,374 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 93,042 \\ - 54,878 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 29,038 \\ \times \quad 72 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 153,911 \\ - 68,099 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 49,499 \\ \times \quad 5 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 61,711 \\ - 30,490 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 9,715 \\ + 2,243 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 22,675 \\ \times \quad 30 \\ \hline \end{array}$$

**Zeros in Division**

Divide. Estimate to check.

1.  $8\overline{)330}$

2.  $6\overline{)371}$

3.  $2\overline{)813}$

4.  $9\overline{)625}$

5.  $5\overline{)535}$

6.  $3\overline{)924}$

7.  $4\overline{)836}$

8.  $6\overline{)615}$

9.  $2\overline{)610}$

10.  $9\overline{)960}$

11.  $7\overline{)423}$

12.  $8\overline{)647}$

Find the value of  $n$ .

13.  $902 \div 9 = n$

14.  $n \div 2 = 204 \text{ r}1$

15.  $142 \div n = 28 \text{ r}2$

16.  $821 \div 8 = n$

\_\_\_\_\_

\_\_\_\_\_

17. On Saturday and Sunday, a total of 908 people visited the museum. If the same number of people came each day, how many went to the museum on Sunday?

18. During a 5-hour period, 510 lunches were sold in a cafeteria. If the same number of lunches were sold each hour, how many lunches were sold during the first hour?

\_\_\_\_\_

\_\_\_\_\_

**Mixed Review**

19. 
$$\begin{array}{r} 1.75 \\ + 4.93 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 2.34 \\ \times 0.31 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 48 \\ \times 84 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 2,476,935 \\ + 3,983,566 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 72 \\ \times 27 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 6,505 \\ \times 2 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 4.28 \\ - 3.79 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 52 \\ \times 80 \\ \hline \end{array}$$

27. 
$$\begin{array}{r} 6,721,400 \\ - 4,055,981 \\ \hline \end{array}$$

28. 
$$\begin{array}{r} 33 \\ \times 56 \\ \hline \end{array}$$

**Choose a Method**

Divide.

1.  $5 \overline{)5,379}$

2.  $7 \overline{)3,942}$

3.  $4 \overline{)8,632}$

4.  $4 \overline{)2,434}$

5.  $7 \overline{)6,015}$

6.  $2 \overline{)19,673}$

7.  $8 \overline{)34,763}$

8.  $9 \overline{)52,845}$

9.  $48,592 \div 8$

10.  $78,787 \div 3$

11.  $81,438 \div 6$

12.  $99,228 \div 9$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13.  $45,980 \div 2$

14.  $299,344 \div 7$

15.  $752,638 \div 8$

16.  $430,572 \div 2$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Mixed Review**17. Write the place value of the **bold-faced** digit: 4,**5**32,703,689

18. Write the standard form for one billion, thirty-four million, five hundred thousand, nine hundred eighty-two.

19. Order from greatest to least: 63,545; 63,454; 64,455; 64,544.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. 
$$\begin{array}{r} 97,036 \\ - 53,987 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 635,837 \\ + 283,496 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 853,969 \\ \times \quad 17 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 38.72 \\ - 17.09 \\ \hline \end{array}$$

**Algebra: Expressions and Equations**Evaluate the expression  $2,460 \div n$  for each value of  $n$ .

1.  $n = 6$

\_\_\_\_\_

2.  $n = 3$

\_\_\_\_\_

3.  $n = 2$

\_\_\_\_\_

4.  $n = 5$

\_\_\_\_\_

Evaluate the expression for each value of  $n$ .

5.  $n \div 6$

$n = 54, 96, 138$

\_\_\_\_\_

6.  $216 \div n$

$n = 3, 4, 9$

\_\_\_\_\_

7.  $n \div 8$

$n = 64, 256, 328$

\_\_\_\_\_

8.  $4,832 \div n$

$n = 2, 4, 8$

\_\_\_\_\_

Determine which value is a solution for the given equation.

9.  $54 \div n = 6$   
 $n = 3, 6 \text{ or } 9$

\_\_\_\_\_

10.  $136 \div n = 34$   
 $n = 6, 2 \text{ or } 4$

\_\_\_\_\_

11.  $n \div 5 = 42$   
 $n = 200 \text{ or } 210$

\_\_\_\_\_

12.  $265 \div n = 5$   
 $n = 51 \text{ or } 53$

\_\_\_\_\_

Solve the equation. Then check the solution.

13.  $45 \div n = 9$

\_\_\_\_\_

14.  $32 \div n = 4$

\_\_\_\_\_

15.  $48 \div n = 12$

\_\_\_\_\_

16.  $n \div 8 = 9$

\_\_\_\_\_

**Mixed Review**

17.  $\begin{array}{r} 23.74 \\ + 0.25 \\ \hline \end{array}$

18.  $\begin{array}{r} 23.74 \\ \times 0.25 \\ \hline \end{array}$

19.  $\begin{array}{r} 2.48 \\ \times 0.77 \\ \hline \end{array}$

20.  $\begin{array}{r} 39.60 \\ - 25.72 \\ \hline \end{array}$

21.  $\begin{array}{r} 59.61 \\ \times 0.15 \\ \hline \end{array}$



## Problem Solving Skill

### Interpret the Remainder

Solve and then explain how you interpreted the remainder.

1. A total of 124 players were riding a bus to the soccer game. If 25 players can ride in each bus, how many buses are needed?

---



---

2. There are 230 books in the storeroom. Each box holds 33 books. How many boxes are needed to store all of the books?

---



---

3. Lauren's piece of wire is 5 times as long as Larry's wire. Lauren's wire is 8 cm long. How long is Larry's wire?

---



---

4. Lee's Bakery sells muffins by the dozen. The bakery has 230 muffins prepared. Does the bakery have enough muffins to fill 20 orders?

---



---

5. Sue has 85 flowers. She put them in 7 vases with the same number of flowers in each vase except one. How many flowers are in the vase with the greatest number of flowers?

---



---

6. Jeremy had 75 feet of string. He divided it into 4 equal pieces. How long was each piece of string?

---



---

### Mixed Review

7. 
$$\begin{array}{r} 5,232 \\ - 2,989 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 9.71 \\ \times 0.36 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 7.043 \\ \times 0.620 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 455 \\ \times 23 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 7.790 \\ \times 0.431 \\ \hline \end{array}$$

12.  $121 \div 11 = \underline{\hspace{2cm}}$

13.  $96 \div 12 = \underline{\hspace{2cm}}$

14.  $108 \div 12 = \underline{\hspace{2cm}}$

**Algebra: Patterns in Division**

Use mental math to complete. Write the basic fact you use.

1. $100 \div 2 = \underline{\quad}$	2. $900 \div 90 = 10$	3. $300 \div 50 = 6$
$1,000 \div 2 = 500$	$9,000 \div 90 = \underline{\quad}$	$3,000 \div 50 = 60$
$10,000 \div 2 = 5,000$	$90,000 \div 90 = 1,000$	$30,000 \div 50 = \underline{\quad}$
_____	_____	_____

4. $140 \div 20 = 7$	5. $250 \div 50 = \underline{\quad}$	6. $360 \div 60 = 6$
$1,400 \div 20 = \underline{\quad}$	$2,500 \div 50 = 50$	$3,600 \div 60 = 60$
$14,000 \div 20 = 700$	$25,000 \div 50 = 500$	$36,000 \div 60 = \underline{\quad}$
_____	_____	_____

Use basic facts and patterns to solve for  $n$ .

7. $120 \div 4 = n$	8. $320 \div 80 = n$	9. $810 \div 90 = n$	10. $350 \div 70 = n$
_____	_____	_____	_____

11. $480 \div 60 = n$	12. $720 \div n = 9$	13. $4,000 \div 80 = n$	14. $2,000 \div n = 100$
_____	_____	_____	_____

15. $5,400 \div n = 90$	16. $3,600 \div n = 90$	17. $5,600 \div n = 800$	18. $2,700 \div n = 30$
_____	_____	_____	_____

Compare. Use  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

19. $24,000 \div 80 \bigcirc 2,400 \div 800$	20. $1,200 \div 3 \bigcirc 12,000 \div 30$
21. $54,000 \div 600 \bigcirc 540 \div 60$	22. $14,000 \div 70 \bigcirc 140 \div 7$

**Mixed Review**

23. $\begin{array}{r} 758,204 \\ +675,938 \\ \hline \end{array}$	24. $\begin{array}{r} 19.654 \\ - 3.789 \\ \hline \end{array}$	25. $\begin{array}{r} 20.03 \\ \times 0.56 \\ \hline \end{array}$	26. $672 \div 9 \underline{\quad}$
--	--	---	------------------------------------

**Estimate Quotients**

Write two pairs of compatible numbers for each. Give two possible estimates.

1.  $359 \div 55 = n$

---



---

2.  $715 \div 74 = n$

---



---

3.  $156 \div 37 = n$

---



---

4.  $438 \div 57 = n$

---



---

5.  $1,893 \div 52 = n$

---



---

6.  $3,127 \div 44 = n$

---



---

Estimate the quotient.

7.  $18 \overline{)175}$

8.  $37 \overline{)231}$

9.  $62 \overline{)375}$

10.  $81 \overline{)255}$

11.  $53 \overline{)2,681}$

12.  $41 \overline{)3,289}$

13.  $79 \overline{)4,007}$

14.  $29 \overline{)1,811}$

15.  $34 \overline{)241}$

16.  $53 \overline{)4,787}$

17.  $47 \overline{)388}$

18.  $68 \overline{)3,594}$

Name the compatible numbers used to find the estimate.

19.  $725 \div 19$   
estimate: 35

---

20.  $3,641 \div 34$   
estimate: 120

---

21.  $2,913 \div 72$   
estimate: 40

---

22.  $439 \div 44$   
estimate: 10

---

**Mixed Review**

23. 
$$\begin{array}{r} 345 \\ \times 89 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 4,578,459 \\ +7,612,501 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 54,607 \\ -23,999 \\ \hline \end{array}$$

26.  $10 \overline{)4,000}$

27. 
$$\begin{array}{r} 366,546 \\ +601,593 \\ \hline \end{array}$$

28. 
$$\begin{array}{r} 614,760 \\ -407,345 \\ \hline \end{array}$$

29. 
$$\begin{array}{r} 908 \\ \times 57 \\ \hline \end{array}$$

30.  $10 \overline{)9,650}$

## Divide by 2-Digit Divisors

Name the position of the first digit of the quotient.

1.  $17 \overline{)1,527}$

2.  $23 \overline{)1,941}$

3.  $34 \overline{)7,109}$

4.  $45 \overline{)5,683}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5.  $89 \overline{)9,266}$

6.  $31 \overline{)6,683}$

7.  $24 \overline{)1,742}$

8.  $87 \overline{)9,556}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Divide. Check by multiplying.

9.  $433 \div 35$

10.  $698 \div 22$

11.  $582 \div 41$

12.  $3,121 \div 81$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13.  $7,506 \div 64$

14.  $8,921 \div 59$

15.  $21,472 \div 75$

16.  $14,117 \div 17$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Divide.

17.  $72 \overline{)8,136}$

18.  $39 \overline{)4,579}$

19.  $27 \overline{)2,835}$

20.  $49 \overline{)7,116}$

21.  $13 \overline{)3,926}$

22.  $81 \overline{)9,446}$

23.  $35 \overline{)7,105}$

24.  $6 \overline{)3,109}$

Match each check with a division problem.

25.  $(43 \times 21) + 10 = 913$

\_\_\_\_\_

a.  $10,738 \div 76 = 141 \text{ r}22$

26.  $(76 \times 141) + 22 = 10,738$

\_\_\_\_\_

b.  $6,348 \div 51 = 124 \text{ r}24$

27.  $(28 \times 152) + 4 = 4,260$

\_\_\_\_\_

c.  $913 \div 43 = 21 \text{ r}10$

28.  $(51 \times 124) + 24 = 6,348$

\_\_\_\_\_

d.  $4,260 \div 28 = 152 \text{ r}4$

## Mixed Review

29. 
$$\begin{array}{r} 35,482 \\ +28,453 \\ \hline \end{array}$$

30. 
$$\begin{array}{r} 6.75 \\ \times 0.75 \\ \hline \end{array}$$

31. 
$$\begin{array}{r} 92.99 \\ + 36.87 \\ \hline \end{array}$$

32. 
$$\begin{array}{r} 123 \\ \times 98 \\ \hline \end{array}$$

33. 
$$\begin{array}{r} 42,000 \\ + 1,212 \\ \hline \end{array}$$

## Correcting Quotients

Write *too high*, *too low*, or *just right* for each estimate.

1.  $34 \overline{)105}^2$

2.  $17 \overline{)89}^5$

3.  $42 \overline{)295}^8$

4.  $23 \overline{)119}^5$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5.  $26 \overline{)2,350}^{90}$

6.  $36 \overline{)2,917}^{90}$

7.  $91 \overline{)19,563}^{300}$

8.  $56 \overline{)32,762}^{400}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Choose the better estimate to use for the quotient. Circle *a* or *b*.

9.  $23 \overline{)94}$  a. 4 b. 5

10.  $41 \overline{)173}$  a. 3 b. 4

11.  $68 \overline{)5,720}$  a. 70 b. 80

12.  $58 \overline{)31,167}$  a. 400 b. 600

Divide.

13.  $76 \overline{)308}$

14.  $23 \overline{)711}$

15.  $14 \overline{)296}$

16.  $39 \overline{)177}$

17.  $46 \overline{)1,726}$

18.  $29 \overline{)544}$

19.  $13 \overline{)98,603}$

20.  $57 \overline{)3,826}$

## Mixed Review

21. A total of 635 people signed up for a bus trip. Each bus can hold 48 people. Will 13 buses be enough for the trip?

\_\_\_\_\_

22. The bakery can make 15 apple pies and 8 blueberry pies every hour. How many pies can the bakery produce in 16 hours?

\_\_\_\_\_

23.  $20 \overline{)4,000}$

24. 
$$\begin{array}{r} 417,389 \\ + 2,560 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 6,243 \\ -4,709 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 12.5 \\ \times 0.6 \\ \hline \end{array}$$

## Practice Division

Divide.

1.  $16\overline{)73}$

2.  $37\overline{)850}$

3.  $55\overline{)926}$

4.  $79\overline{)3,177}$

5.  $35\overline{)219}$

6.  $96\overline{)7,428}$

7.  $41\overline{)2,659}$

8.  $27\overline{)1,167}$

9.  $71\overline{)60,368}$

10.  $54\overline{)44,978}$

11.  $22\overline{)39,161}$

12.  $67\overline{)46,514}$

13.  $63\overline{)4,144}$

14.  $37\overline{)2,187}$

15.  $84\overline{)76,167}$

16.  $52\overline{)78,667}$

17.  $4,581 \div 32$   
\_\_\_\_\_

18.  $1,985 \div 23$   
\_\_\_\_\_

19.  $8,042 \div 91$   
\_\_\_\_\_

20.  $25,401 \div 25$   
\_\_\_\_\_

21.  $11,933 \div 42$   
\_\_\_\_\_

22.  $3,751 \div 55$   
\_\_\_\_\_

## Mixed Review

23. The students at Walnut Street School collected 3,102 cans for a recycling center. Each student brought in 6 cans. How many students attend the school?

  
\_\_\_\_\_

24. The Sweet Shoppe sold 2,610 ice cream cones during the 30 days of June. It sold the same number of cones each day. How many cones were sold per day?

  
\_\_\_\_\_

25. 
$$\begin{array}{r} 87.562 \\ -14.787 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 25.76 \\ +68.34 \\ \hline \end{array}$$

27. 
$$\begin{array}{r} 8.09 \\ \times 0.35 \\ \hline \end{array}$$

28.  $25\overline{)800}$

## Problem Solving Strategy

### Predict and Test

Predict and test to solve.

- Scott is 5 years old. His Aunt Mary is 4 times as old. In how many years will Scott be half as old as his aunt will be at that time?  
\_\_\_\_\_
- The sum of two numbers is 42. Their product is 360. What are the two numbers?  
\_\_\_\_\_
- A tunnel toll is \$1.25 for cars and \$2.00 for trucks. In one hour, \$40.00 is collected from 23 vehicles. How many cars and trucks paid the toll?  
\_\_\_\_\_
- Bob has 276 baseball cards. He keeps them in equal groups in boxes, and has started a new box with 3 cards in it. How many boxes of cards does he have? How many baseball cards are in each box?  
\_\_\_\_\_

### Mixed Review

Solve.

$$\begin{array}{r} 5. \quad 92,074 \\ \times \quad 18 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 36,415 \\ \times \quad 39 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 70,851 \\ \times \quad 42 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 608,717 \\ \times \quad 17 \\ \hline \end{array}$$

$$9. \quad 9 \overline{)2,304}$$

$$10. \quad 7 \overline{)5,635}$$

$$11. \quad 4 \overline{)9,004}$$

$$12. \quad 6 \overline{)5,952}$$

- The Scouts washed 12 cars one afternoon. They earned \$6.50 for each car they washed. How much money did they earn?  
\_\_\_\_\_

- What is 12.0143 rounded to the nearest hundredth?  
\_\_\_\_\_

**Algebra: Patterns in Decimal Division**

Complete each pattern.

1.  $600 \div 4 = \underline{\hspace{2cm}}$

$60 \div 4 = \underline{\hspace{2cm}}$

$6 \div 4 = \underline{\hspace{2cm}}$

4.  $100 \div 4 = \underline{\hspace{2cm}}$

$10 \div 4 = \underline{\hspace{2cm}}$

$1 \div 4 = \underline{\hspace{2cm}}$

2.  $100 \div 5 = \underline{\hspace{2cm}}$

$10 \div 5 = \underline{\hspace{2cm}}$

$1 \div 5 = \underline{\hspace{2cm}}$

5.  $1,400 \div 5 = \underline{\hspace{2cm}}$

$140 \div 5 = \underline{\hspace{2cm}}$

$14 \div 5 = \underline{\hspace{2cm}}$

3.  $200 \div 5 = \underline{\hspace{2cm}}$

$20 \div 5 = \underline{\hspace{2cm}}$

$2 \div 5 = \underline{\hspace{2cm}}$

6.  $1,000 \div 4 = \underline{\hspace{2cm}}$

$100 \div 4 = \underline{\hspace{2cm}}$

$10 \div 4 = \underline{\hspace{2cm}}$

Complete each table. Use patterns and mental math.

7.	$n$	$n \div 20$
	10,000	<u>          </u>
	1,000	<u>          </u>
	100	<u>          </u>
	10	<u>          </u>

8.	$n$	$n \div 90$
	36,000	<u>          </u>
	<u>          </u>	40
	<u>          </u>	4
	36	<u>          </u>

9.	$n$	$n \div 6$
	3,000	<u>          </u>
	300	<u>          </u>
	<u>          </u>	5
	3	<u>          </u>

Write the check for each division problem.

10.  $40 \div 5 = 8$

$4 \div 5 = 0.8$

\_\_\_\_\_

\_\_\_\_\_

11.  $3,200 \div 80 = 40$

$32 \div 80 = 0.4$

\_\_\_\_\_

\_\_\_\_\_

12.  $2,800 \div 40 = 70$

$28 \div 40 = 0.7$

\_\_\_\_\_

\_\_\_\_\_

**Mixed Review**

13. Theresa has 120 bows to make. She can make 6 bows in 10 minutes. How long will it take her to make all of the bows?

\_\_\_\_\_

14. Sid earns \$60 dollars a week. He works 5 hours each week. How much does he earn per hour?

\_\_\_\_\_

15. 
$$\begin{array}{r} 30 \\ \times 60 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 27.45 \\ \times 0.14 \\ \hline \end{array}$$

17. Evaluate  $14 + (n + 40)$  for  $n = 50$ .

\_\_\_\_\_



# Decimal Division

Make a model and find the quotient.

1.  $0.016 \div 4 =$  \_\_\_\_\_      2.  $\$0.72 \div 8 =$  \_\_\_\_\_      3.  $0.42 \div 6 =$  \_\_\_\_\_

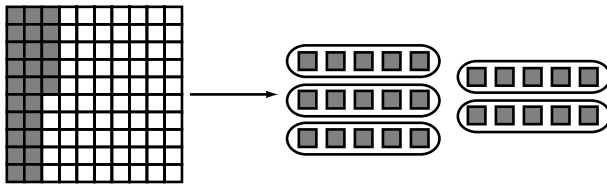
4.  $4.8 \div 8 =$  \_\_\_\_\_      5.  $2.24 \div 4 =$  \_\_\_\_\_      6.  $4.98 \div 6 =$  \_\_\_\_\_

7.  $47.6 \div 7 =$  \_\_\_\_\_      8.  $\$0.18 \div 3 =$  \_\_\_\_\_      9.  $\$1.32 \div 4 =$  \_\_\_\_\_

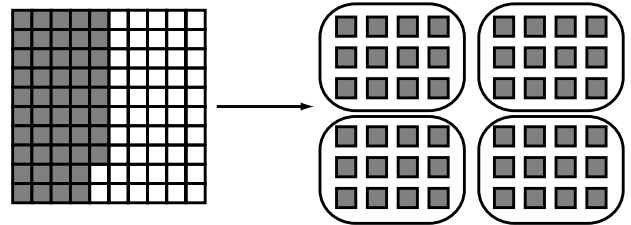
10.  $22.4 \div 7 =$  \_\_\_\_\_      11.  $0.63 \div 3 =$  \_\_\_\_\_      12.  $3.5 \div 7 =$  \_\_\_\_\_

Use the model to complete the number sentence.

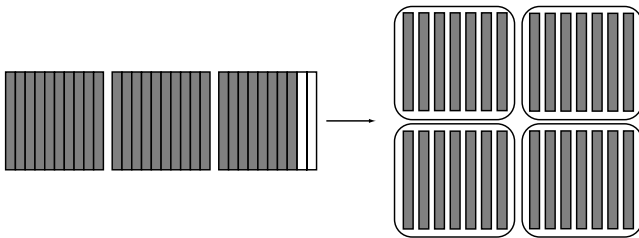
13.  $0.25 \div 5 =$  \_\_\_\_\_



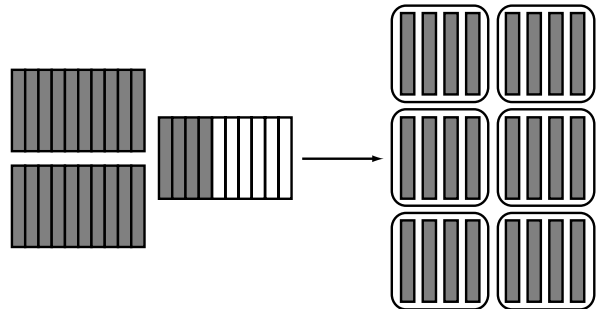
14.  $0.48 \div 4 =$  \_\_\_\_\_



15.  $2.8 \div 4 =$  \_\_\_\_\_



16.  $2.4 \div 6 =$  \_\_\_\_\_



## Mixed Review

17. 
$$\begin{array}{r} 4.35 \\ \times 7.82 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 600 \\ \times 90 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 58 \\ \times 29 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 368 \\ \times 49 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 6.84 \\ \times 0.32 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 487 \\ \times 61 \\ \hline \end{array}$$

23.  $50 \overline{)6,875}$

24. 
$$\begin{array}{r} 86.84 \\ \times 3.24 \\ \hline \end{array}$$

## Divide Decimals by Whole Numbers

Copy the quotient and place the decimal point.

$$1. \begin{array}{r} 07 \\ 8 \overline{)5.6} \end{array} \quad 8 \overline{)5.6} \quad 2. \begin{array}{r} 107 \\ 3 \overline{)3.21} \end{array} \quad 3 \overline{)3.21} \quad 3. \begin{array}{r} 096 \\ 3 \overline{)2.88} \end{array} \quad 3 \overline{)2.88} \quad 4. \begin{array}{r} 54 \\ 12 \overline{)64.8} \end{array} \quad 12 \overline{)64.8}$$

$$5. \begin{array}{r} 215 \\ 9 \overline{)19.35} \end{array} \quad 9 \overline{)19.35} \quad 6. \begin{array}{r} 356 \\ 7 \overline{)249.2} \end{array} \quad 7 \overline{)249.2} \quad 7. \begin{array}{r} 2004 \\ 4 \overline{)80.16} \end{array} \quad 4 \overline{)80.16} \quad 8. \begin{array}{r} 1467 \\ 5 \overline{)73.35} \end{array} \quad 5 \overline{)73.35}$$

Find the quotient. Check by multiplying.

$$9. \quad 7 \overline{)47.6}$$

$$10. \quad 2 \overline{)6.06}$$

$$11. \quad 3 \overline{)2.22}$$

$$12. \quad 14 \overline{)\$674.24}$$

$$13. \quad 12 \overline{)61.08}$$

$$14. \quad 13 \overline{)325.52}$$

$$15. \quad 22.4 \div 7$$

$$16. \quad 237.5 \div 19$$

$$17. \quad 0.63 \div 3$$

### Mixed Review

$$18. \quad 4,800 \div 3$$

$$19. \quad \begin{array}{r} 748.57 \\ + 16.38 \\ \hline \end{array}$$

$$20. \quad \begin{array}{r} 13.406 \\ - 1.839 \\ \hline \end{array}$$

$$21. \quad \begin{array}{r} 76.49 \\ \times 5 \\ \hline \end{array}$$

## Problem Solving Strategy

### Compare Strategies

Work backward or draw a diagram to solve.

- Mary went shopping for school. She bought 3 pens at \$1.75 each and 2 pads of paper for \$3.75 each. She paid for these items using one bill. She received \$7.25 in change. Was it a \$10.00, \$20.00, or \$50.00 bill?  
\_\_\_\_\_
- Mark bought two tickets for a show and paid for a dinner. After the show, Mark paid for some snacks. The dinner was \$25.00, and each ticket was \$12.50. Mark spent \$55.00 altogether. How much did he spend on the snacks?  
\_\_\_\_\_
- The Smythes went on a family vacation and drove 237 miles to Grandma's house. Next they drove 140 miles on each of three days to visit three cousins. When they reached the last cousin's house, the odometer read 48,392.6. What did the odometer read when they started out?  
\_\_\_\_\_
- Tom and Blair live the same distance from their school. Marcia lives 2 blocks from the school, but 7 blocks from Blair. She lives 1 block closer to the school than she does to Tom. They all live on the same street as the school. How far apart do Tom and Blair live?  
\_\_\_\_\_

### Mixed Review

- Harry needs \$160 to buy a bike. He has \$70. If he saves \$10 each week, how many weeks will it take him to save enough to buy the bike?  
\_\_\_\_\_
- The difference between two numbers is 3.2. The sum of the numbers is 46.4. What are the two numbers?  
\_\_\_\_\_

$$\begin{array}{r} 7. \quad 2.29 \\ \times 0.73 \\ \hline \end{array}$$

$$8. \quad 7 \overline{)896}$$

$$\begin{array}{r} 9. \quad 16.43 \\ \times 0.809 \\ \hline \end{array}$$

$$10. \quad 13 \overline{)411}$$

$$\begin{array}{r} 11. \quad 2,917 \\ \times \quad 18 \\ \hline \end{array}$$

## Divide to Change a Fraction to a Decimal

Write as a decimal.

- |                           |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|---------------------------|
| 1. $\frac{2}{5}$ _____    | 2. $\frac{7}{10}$ _____   | 3. $\frac{5}{10}$ _____   | 4. $\frac{3}{6}$ _____    |
| 5. $\frac{2}{8}$ _____    | 6. $\frac{3}{4}$ _____    | 7. $\frac{6}{8}$ _____    | 8. $\frac{3}{20}$ _____   |
| 9. $\frac{5}{8}$ _____    | 10. $\frac{4}{16}$ _____  | 11. $\frac{12}{20}$ _____ | 12. $\frac{23}{25}$ _____ |
| 13. $\frac{3}{8}$ _____   | 14. $\frac{21}{40}$ _____ | 15. $\frac{7}{16}$ _____  | 16. $\frac{12}{40}$ _____ |
| 17. $\frac{51}{80}$ _____ | 18. $\frac{19}{80}$ _____ | 19. $\frac{19}{40}$ _____ | 20. $\frac{7}{20}$ _____  |

### Mixed Review

21. Joanne has \$0.66. She has 5 coins. What could they be?  
 \_\_\_\_\_  
 \_\_\_\_\_
22. Michele was making tuna salad for a party. The recipe for 10 servings called for 8 oz of mayonnaise. A total of 240 people were expected to be at the brunch. How much mayonnaise would Michele need?  
 \_\_\_\_\_

23. Order 7.491, 7.049, 7.794 from least to greatest.  
 \_\_\_\_\_

24. Round 45.89745 to the nearest ten-thousandths place.  
 \_\_\_\_\_

25. How much greater is  $24 \times 36$  than  $23 \times 35$ ?  
 \_\_\_\_\_

26.  $\frac{3}{10} + \frac{8}{10} =$  \_\_\_\_\_    27.  $\frac{4}{15} + \frac{7}{15} =$  \_\_\_\_\_    28.  $\frac{10}{12} - \frac{6}{12} =$  \_\_\_\_\_    29.  $\frac{14}{29} - \frac{11}{29} =$  \_\_\_\_\_

30.  $\frac{15}{40} -$  \_\_\_\_\_  $= \frac{1}{5}$     31. \_\_\_\_\_  $+ \frac{13}{52} = \frac{27}{52}$     32.  $\frac{4}{19} +$  \_\_\_\_\_  $= \frac{11}{19}$     33.  $\frac{17}{20} -$  \_\_\_\_\_  $= \frac{1}{2}$

## Algebra: Patterns in Decimal Division

Complete each multiplication pattern. Then write the related division pattern.

1.  $9 \times 7 = 63$

$0.9 \times 7 = \underline{\hspace{2cm}}$

$0.09 \times 7 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2.  $68 \times 6 = 408$

$6.8 \times 6 = \underline{\hspace{2cm}}$

$0.68 \times 6 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3.  $44 \times 9 = 396$

$4.4 \times 9 = \underline{\hspace{2cm}}$

$0.44 \times 9 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4.  $4 \times 5 = 20$

$0.4 \times 5 = \underline{\hspace{2cm}}$

$0.04 \times 5 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5.  $73 \times 3 = 219$

$7.3 \times 3 = \underline{\hspace{2cm}}$

$0.73 \times 3 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6.  $83 \times 8 = 664$

$8.3 \times 8 = \underline{\hspace{2cm}}$

$0.83 \times 8 = \underline{\hspace{2cm}}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Complete each division pattern.

7.  $90 \div 30 = 3$

$9.0 \div 3.0 = \underline{\hspace{2cm}}$

$0.90 \div 0.30 = \underline{\hspace{2cm}}$

8.  $80 \div 16 = 5$

$8.0 \div 1.6 = \underline{\hspace{2cm}}$

$0.80 \div 0.16 = \underline{\hspace{2cm}}$

9.  $169 \div 13 = 13$

$16.9 \div 1.3 = \underline{\hspace{2cm}}$

$1.69 \div 0.13 = \underline{\hspace{2cm}}$

**Algebra** Use basic facts and patterns to solve for  $n$ .

10.  $28 \div 0.04 = n$

\_\_\_\_\_

11.  $0.24 \div 0.08 = n$

\_\_\_\_\_

12.  $3.6 \div n = 0.09$

\_\_\_\_\_

### Mixed Review

13. Write a number that is between 24.56 and 24.60.

\_\_\_\_\_

14. Estimate the sum of 2,568,986 and 6,234,972 to the nearest hundred thousand.

\_\_\_\_\_

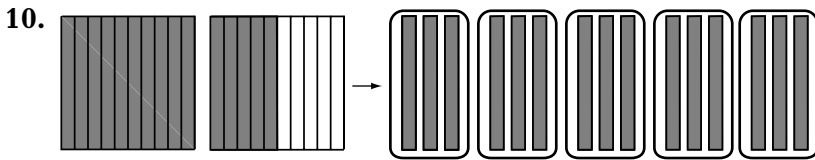
Name \_\_\_\_\_

## Divide with Decimals

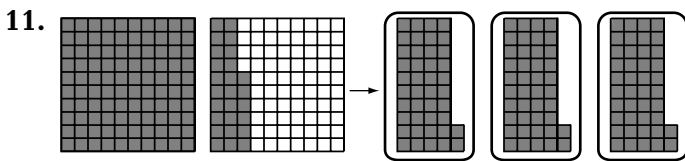
Make a model to find the quotient. Record a division equation for each model.

1.  $3.6 \div 0.9 = \underline{\hspace{2cm}}$       2.  $3.2 \div 0.8 = \underline{\hspace{2cm}}$       3.  $2.8 \div 0.7 = \underline{\hspace{2cm}}$   
 4.  $0.9 \div 0.3 = \underline{\hspace{2cm}}$       5.  $0.16 \div 0.02 = \underline{\hspace{2cm}}$       6.  $2 \div 0.5 = \underline{\hspace{2cm}}$   
 7.  $0.42 \div 0.07 = \underline{\hspace{2cm}}$       8.  $0.54 \div 0.06 = \underline{\hspace{2cm}}$       9.  $0.63 \div 0.07 = \underline{\hspace{2cm}}$

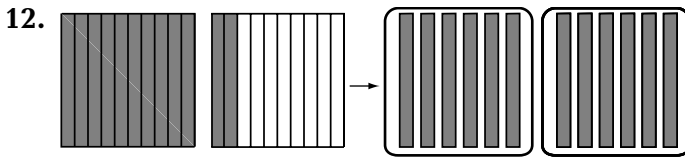
Use the model. Complete the equation.



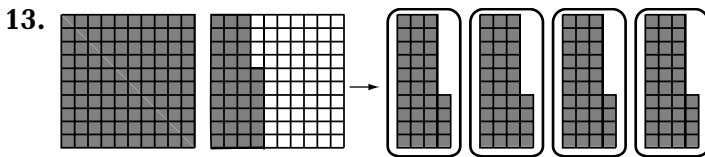
$1.5 \div 0.3 = \underline{\hspace{2cm}}$



$1.26 \div 0.42 = \underline{\hspace{2cm}}$



$1.2 \div 0.6 = \underline{\hspace{2cm}}$



$1.36 \div 0.34 = \underline{\hspace{2cm}}$

### Mixed Review

14.  $325.6 \div 4 = \underline{\hspace{2cm}}$       15. 
$$\begin{array}{r} 423.15 \\ \times 2.3 \\ \hline \end{array}$$
      16. 
$$\begin{array}{r} 4,347,568 \\ - 2,928,471 \\ \hline \end{array}$$

**Decimal Division**

Place the decimal point in the quotient. Draw arrows to help you.

1.  $0.5 \overline{)6.15}$

2.  $0.7 \overline{)5.04}$

3.  $0.025 \overline{)14.50}$

4.  $0.08 \overline{)3.36}$

5.  $0.6 \overline{)2.94}$

6.  $0.2 \overline{)4.82}$

7.  $0.5 \overline{)2.25}$

8.  $0.9 \overline{)5.31}$

Divide.

9.  $0.8 \overline{)4.16}$

10.  $0.6 \overline{)2.52}$

11.  $0.15 \overline{)9.45}$

12.  $\$0.45 \overline{)\$10.35}$

13.  $0.7 \overline{)37.1}$

14.  $\$0.05 \overline{)\$4.65}$

15.  $0.9 \overline{)2.34}$

16.  $0.2 \overline{)5.8}$

17.  $38.4 \div 2.4$

18.  $3.9 \div 1.5$

19.  $2.03 \div 0.7$

20.  $6.48 \div 1.8$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

21.  $0.16 \div 0.16$

22.  $15.2 \div 0.04$

23.  $\$5.12 \div 0.16$

24.  $1.04 \div 0.8$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Patterns** Divide. Then describe a pattern in the quotients.

25. a.  $7.2 \div 1.8$  \_\_\_\_\_

b.  $7.2 \div 0.18$  \_\_\_\_\_

c.  $7.2 \div 0.018$  \_\_\_\_\_

\_\_\_\_\_

26. a.  $9.6 \div 1.2$  \_\_\_\_\_

b.  $9.6 \div 0.12$  \_\_\_\_\_

c.  $9.6 \div 0.012$  \_\_\_\_\_

\_\_\_\_\_

**Mixed Review**

Solve.

27.  $12 + n = 12$

28.  $n + 3 = 14$

29.  $12 \times n = 144$

30.  $n - 7 = 6$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Problem Solving Skill

### Choose the Operation

Solve. Name the operation or operations you used.

1. An oak tree measured 52 ft high. How many inches would it measure?  
\_\_\_\_\_
2. In 1997 it was estimated that there were 441,297 people living in Charlotte, North Carolina and 195,426 people living in Greensboro, North Carolina. About how many more people lived in Charlotte than in Greensboro?  
\_\_\_\_\_
3. Oranges cost \$3.00 a dozen. How much would 3 oranges cost?  
\_\_\_\_\_
4. An elephant takes approximately two years to bear a baby elephant. How many days is that?  
\_\_\_\_\_

There are approximately 28,073 major merchant ships in the world. Of these, 473 are registered to the United States, 1,503 are registered to China, 472 are registered to Germany, and 4,406 are registered to Panama.

5. How many more ships are registered to Panama than to Germany and the United States together?  
A 2,925  
B 3,829  
C 3,461  
D 1,762  
\_\_\_\_\_
6. What operation would you use to find the total number of ships registered to China, Germany and the United States?  
F Multiplication  
G Addition  
H Subtraction  
J Division  
\_\_\_\_\_

### Mixed Review

7. Suzanne earned \$24.00 for babysitting for 4 hours. How much did she earn in 1 hour?  
\_\_\_\_\_
8. Cindy's dog had a litter of 5 puppies last year and litter of 6 puppies this year. Write an expression for this.  
\_\_\_\_\_



## Divisibility

### Vocabulary

Fill in the blank.

1. A number is \_\_\_\_\_ by another number if the quotient is a whole number and the remainder is zero.
- 

Tell if each number is divisible by 2, 3, 4, 5, 6, 9, or 10.

2. 54

\_\_\_\_\_

3. 144

\_\_\_\_\_

4. 420

\_\_\_\_\_

5. 864

\_\_\_\_\_

6. 990

\_\_\_\_\_

7. 1,224

\_\_\_\_\_

8. 3,600

\_\_\_\_\_

9. 6,618

\_\_\_\_\_

10. 234

\_\_\_\_\_

11. 684

\_\_\_\_\_

12. 1,827

\_\_\_\_\_

13. 2,475

\_\_\_\_\_

14. 675

\_\_\_\_\_

15. 288

\_\_\_\_\_

16. 842

\_\_\_\_\_

17. 540

\_\_\_\_\_

### Mixed Review

18.  $9 \overline{)37}$

22. Marie made 3 dozen cookies. She needs to divide them evenly into groups greater than 4. What are all the possible equal-size groups into which she can divide the cookies?
- \_\_\_\_\_
- \_\_\_\_\_

19.  $44 \overline{)794}$

20.  $0.06 \div 3$

\_\_\_\_\_

21.  $0.04 \div 0.2$

\_\_\_\_\_

23. Ted needs to divide 60 stickers into equal groups. What are all the possible equal-size groups into which he can divide the stickers?
- \_\_\_\_\_
- \_\_\_\_\_

## Multiples and Least Common Multiples

### Vocabulary

Complete.

- The product of two or more nonzero whole numbers is a \_\_\_\_\_.
- Multiples of one number that are also multiples of another number are called \_\_\_\_\_.
- The least number that is a common multiple is called the \_\_\_\_\_ or \_\_\_\_\_.

List the first 6 multiples of each number.

4. 2

5. 3

6. 7

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. 9

8. 10

9. 6

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the least common multiple for each pair of numbers.

10. 3, 4 \_\_\_\_\_

11. 2, 6 \_\_\_\_\_

12. 4, 5 \_\_\_\_\_

13. 3, 7 \_\_\_\_\_

14. 8, 6 \_\_\_\_\_

15. 4, 6 \_\_\_\_\_

16. 5, 6 \_\_\_\_\_

17. 4, 7 \_\_\_\_\_

### Mixed Review

Order from *greatest to least*.

18. 17.86, 17.87, 17.78, 17.36

19. 1,555; 5,151; 5,515; 1,515

\_\_\_\_\_

\_\_\_\_\_

Solve.

20.  $7,080 + 708 + 8,070 + 807$

21.  $5\frac{1}{2} - 2\frac{3}{4}$

\_\_\_\_\_

\_\_\_\_\_

## Greatest Common Factor

### Vocabulary

Fill in the blanks.

1. The greatest factor that two or more numbers have in common is the \_\_\_\_\_ or \_\_\_\_\_.

List the factors for each number.

2. 6

3. 20

4. 32

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write the common factors for each set of numbers.

5. 12, 36

6. 4, 20, 24

7. 9, 18, 27

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write the greatest common factor for each set of numbers.

8. 6, 8

9. 9, 12

10. 15, 21

GCF \_\_\_\_\_

GCF \_\_\_\_\_

GCF \_\_\_\_\_

11. 22, 44

12. 12, 54

13. 7, 42, 70

GCF \_\_\_\_\_

GCF \_\_\_\_\_

GCF \_\_\_\_\_

14. 10, 50, 70

15. 18, 45, 54

16. 3, 30, 33

GCF \_\_\_\_\_

GCF \_\_\_\_\_

GCF \_\_\_\_\_

### Mixed Review

$$\begin{array}{r} 17. \quad 232 \\ \quad 174 \\ + 216 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 872 \\ \quad 704 \\ + 205 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 512 \\ \quad 414 \\ + 781 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 480 \\ \quad 754 \\ + 841 \\ \hline \end{array}$$

21. Evaluate  $8 + (3 \times n)$  if  $n = 4$ .

22. Find the LCM of 3, 4, and 15.

\_\_\_\_\_

\_\_\_\_\_

## Problem Solving Skill

### Identify Relationships

Use the relationships between the given numbers to find the missing number.

1. The GCF of 8 and another number is 1. The LCM is 24. What is the number?

\_\_\_\_\_

2. The GCF of 9 and another number is 1. The LCM is 45. What is the number?

\_\_\_\_\_

3. The LCM of 16 and 4 is 16. What is the GCF?

\_\_\_\_\_

4. The GCF of 13 and 2 is 1. What is the LCM of 13 and 2?

\_\_\_\_\_

5. The GCF of 9 and 7 is 1. What is the LCM of 9 and 7?

\_\_\_\_\_

6. The LCM of 9 and 18 is 18. What is the GCF?

\_\_\_\_\_

7. The GCF of 16 and 12 is 4. What is the LCM of 12 and 16?

\_\_\_\_\_

8. The LCM of two numbers is 56. What are the numbers?

\_\_\_\_\_

### Mixed Review

9. Evaluate  $(n + 3) - 9$  if  $n = 15$ .

\_\_\_\_\_

10.  $3.2 \overline{)9.12}$

\_\_\_\_\_

11. Write seven million, six hundred thousand, eighty-three in standard form.

\_\_\_\_\_

12. If a number is divisible by 9, what other number is it also divisible by?

\_\_\_\_\_

13. 
$$\begin{array}{r} 1,674 \\ \times 85 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 6,819 \\ \times 5 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 4,242 \\ \times 21 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 849 \\ \times 69 \\ \hline \end{array}$$



## Prime and Composite Numbers

### Vocabulary

1. A \_\_\_\_\_ has exactly two factors, 1 and the number itself.
2. A \_\_\_\_\_ has more than two factors.

Write all the arrays for each number. Write *prime* or *composite* for each number.

3. 8

---



---



---

4. 7

---



---



---

5. 12

---



---



---

6. 9

---



---

7. 6

---



---

8. 5

---



---

Write *prime* or *composite* for each number.

9. 30

---

10. 16

---

11. 24

---

12. 31

---

### Mixed Review

Find the least common multiple for each set of numbers.

13. 6, 7, 3

---

14. 7, 8, 10

---

15. 2, 5, 6

---

16. 3, 4, 7

---

17. The area of Sharon's garden is 40 sq ft. List all its whole-number possible lengths and widths.

---



---

18. Beth has \$0.60 more than Suzy. Together they have \$8.20. How much money does each girl have?

---



---

## Introduction to Exponents

Write in exponent form.

1. 10,000,000,000

2. 100,000

3. 100,000,000

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. 1,000,000,000

5. 10,000

6. 100,000,000,000

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the value.

7.  $10^9$

8.  $10^6$

9.  $10^4$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10.  $10^5$

11.  $10^7$

12.  $10^{10}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the value of  $n$ .

13.  $10 \times n \times 10 = 10^3$

14.  $100,000 = 10^n$

15.  $1,000,000 = 10^n$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

16.  $10,000 \bigcirc 10^5$

17.  $10^4 \bigcirc 10,000$

18.  $10 \times 100 \bigcirc 10^3$

## Mixed Review

Order from *least* to *greatest*.

Order from *greatest* to *least*.

19. 1.939, 1.393, 3.919, 91.93, 3.199

20. 2.345, 2.543, 2.435, 2.534, 2.453

\_\_\_\_\_

\_\_\_\_\_

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

21.  $5.9376 \bigcirc 5.3897$

22.  $8.639 \bigcirc 8,639$

23.  $3,384,844 \bigcirc 3,038,484$

24. William gives  $\frac{3}{6}$  of his energy bar to James and  $\frac{1}{2}$  to Phyllis. How much does William have left?

25. What type of graph would you use to display the ages of students in your classroom?

\_\_\_\_\_

\_\_\_\_\_

**Evaluate Expressions with Exponents**

Write the equal factors.

1.  $9^3$

\_\_\_\_\_  
\_\_\_\_\_

2.  $7^6$

\_\_\_\_\_  
\_\_\_\_\_

3.  $12^5$

\_\_\_\_\_  
\_\_\_\_\_

4.  $21^4$

\_\_\_\_\_  
\_\_\_\_\_

Write each expression by using an exponent.

5.  $6 \times 6 \times 6 \times 6 \times 6 \times 6 \times 6 \times 6$

\_\_\_\_\_  
\_\_\_\_\_

6.  $75 \times 75 \times 75 \times 75 \times 75$

\_\_\_\_\_  
\_\_\_\_\_

7.  $53 \times 53 \times 53 \times 53 \times 53 \times 53 \times 53$

\_\_\_\_\_

8.  $9 \times 9 \times 9 \times 9 \times 9 \times 9$

\_\_\_\_\_

Find the value.

9.  $14^2$

\_\_\_\_\_  
\_\_\_\_\_

10.  $6^4$

\_\_\_\_\_  
\_\_\_\_\_

11.  $3^6$

\_\_\_\_\_  
\_\_\_\_\_

12.  $12^3$

\_\_\_\_\_  
\_\_\_\_\_

13.  $7^4$

\_\_\_\_\_  
\_\_\_\_\_

14.  $1^{10}$

\_\_\_\_\_  
\_\_\_\_\_

15.  $11^5$

\_\_\_\_\_  
\_\_\_\_\_

16.  $42^2$

\_\_\_\_\_  
\_\_\_\_\_Find the value of  $n$ .

17.  $n^4 = 16$

\_\_\_\_\_

18.  $6^n = 216$

\_\_\_\_\_

19.  $5^n = 625$

\_\_\_\_\_

20.  $11^n = 1,331$

\_\_\_\_\_

**Mixed Review**

Solve.

21. 
$$\begin{array}{r} 3,302 \\ \times 41 \\ \hline \end{array}$$

22.  $45 \overline{)2,025}$

23. 
$$\begin{array}{r} 1,296 \\ \times 36 \\ \hline \end{array}$$

24.  $36 \overline{)46,656}$

25. 
$$\begin{array}{r} 7,905 \\ \times 62 \\ \hline \end{array}$$

26.  $17 \overline{)9,520}$

27. 
$$\begin{array}{r} 5,461 \\ \times 33 \\ \hline \end{array}$$

28.  $29 \overline{)24,418}$

**Exponents and Prime Factors**

Complete.

1.  $36 = 2 \times \square \times 3 \times \square$   
\_\_\_\_\_

2.  $9 \times 4 = \square \times \square \times \square \times 2$   
\_\_\_\_\_

3.  $44 = \square \times 2 \times 11$   
\_\_\_\_\_

4.  $48 = 2 \times \square \times \square \times \square \times 3$   
\_\_\_\_\_

Rewrite by using exponents.

5.  $3 \times 5 \times 3 \times 5$   
\_\_\_\_\_

6.  $6 \times 6 \times 6 \times 4 \times 4$   
\_\_\_\_\_

7.  $2 \times 2 \times 3 \times 2 \times 3 \times 2$   
\_\_\_\_\_

8.  $8 \times 4 \times 4 \times 8 \times 4$   
\_\_\_\_\_

9.  $5 \times 5 \times 5 \times 5 \times 13$   
\_\_\_\_\_

10.  $64 \times 64 \times 64 \times 64$   
\_\_\_\_\_

Find the prime factorization of the number. Use exponents when possible.

11. 32  
\_\_\_\_\_

12. 49  
\_\_\_\_\_

13. 54  
\_\_\_\_\_

14. 81  
\_\_\_\_\_

15. 144  
\_\_\_\_\_

16. 256  
\_\_\_\_\_

Complete the prime factorization. Find the value of the variable.

17.  $5 \times 5 \times 5 \times 5 = 5^n$   
\_\_\_\_\_

18.  $3^2 \times n = 36$   
\_\_\_\_\_

19.  $5^2 \times 5^r = 625$   
\_\_\_\_\_

20.  $7 \times 7 \times 2^w = 392$   
\_\_\_\_\_

21.  $2 \times 3 \times 5^d = 150$   
\_\_\_\_\_

22.  $13^m \times 2^4 = 208$   
\_\_\_\_\_

**Mixed Review**

23. 
$$\begin{array}{r} 8,142 \\ + 7,539 \\ \hline \end{array}$$

24.  $4 \overline{)256}$

25. 
$$\begin{array}{r} 42,877 \\ - 21,759 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 3,458 \\ \times 36 \\ \hline \end{array}$$



**Relate Decimals to Fractions**

Write a fraction for each decimal.

1. 0.2

\_\_\_\_\_

2. 0.14

\_\_\_\_\_

3. 0.127

\_\_\_\_\_

4. 0.68

\_\_\_\_\_

5. 0.05

\_\_\_\_\_

6. 0.84

\_\_\_\_\_

7. 0.8

\_\_\_\_\_

8. 0.28

\_\_\_\_\_

9. 0.01

\_\_\_\_\_

10. 0.678

\_\_\_\_\_

11. 0.35

\_\_\_\_\_

12. 0.61

\_\_\_\_\_

Write a decimal for each fraction.

13.  $\frac{6}{10}$

\_\_\_\_\_

14.  $\frac{83}{100}$

\_\_\_\_\_

15.  $\frac{39}{100}$

\_\_\_\_\_

16.  $\frac{645}{1,000}$

\_\_\_\_\_

17.  $\frac{3}{10}$

\_\_\_\_\_

18.  $\frac{1}{100}$

\_\_\_\_\_

19.  $\frac{71}{100}$

\_\_\_\_\_

20.  $\frac{16}{1,000}$

\_\_\_\_\_

21.  $\frac{5}{10}$

\_\_\_\_\_

22.  $\frac{12}{100}$

\_\_\_\_\_

23.  $\frac{199}{1,000}$

\_\_\_\_\_

24.  $\frac{33}{100}$

\_\_\_\_\_

**Mixed Review**

$$\begin{array}{r} 25. \quad 122 \\ \quad 174 \\ + 296 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 138 \\ \quad 104 \\ + 186 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 1,302 \\ \quad + 2,996 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad 21.2 \\ \quad \quad 7.9 \\ + 39.6 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 13,274 \\ \quad - 2,016 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 7,520 \\ \quad + 1,381 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 67,794 \\ \quad - 5,418 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 23,681 \\ \quad + 99,875 \\ \hline \end{array}$$

$$\begin{array}{r} 33. \quad 779 \\ \quad \times 6 \\ \hline \end{array}$$

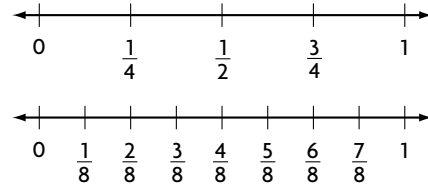
$$\begin{array}{r} 34. \quad 4,782 \\ \quad \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 35. \quad 48,119 \\ \quad \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 36. \quad 361,195 \\ \quad \times 5 \\ \hline \end{array}$$

## Equivalent Fractions

Use the number lines to name an equivalent fraction for each.



1.  $\frac{1}{4}$  \_\_\_\_\_      2.  $\frac{4}{8}$  \_\_\_\_\_      3.  $\frac{3}{4}$  \_\_\_\_\_

Write an equivalent fraction. Use multiplication or division.

4.  $\frac{2}{4}$  \_\_\_\_\_      5.  $\frac{18}{20}$  \_\_\_\_\_      6.  $\frac{3}{8}$  \_\_\_\_\_      7.  $\frac{7}{21}$  \_\_\_\_\_
8.  $\frac{3}{5}$  \_\_\_\_\_      9.  $\frac{2}{15}$  \_\_\_\_\_      10.  $\frac{8}{12}$  \_\_\_\_\_      11.  $\frac{10}{16}$  \_\_\_\_\_

Which fraction is *not* equivalent to the given fraction? Circle *a*, *b*, or *c*.

12.  $\frac{2}{3}$       a.  $\frac{6}{9}$       b.  $\frac{5}{6}$       c.  $\frac{8}{12}$       13.  $\frac{9}{15}$       a.  $\frac{3}{5}$       b.  $\frac{18}{30}$       c.  $\frac{16}{25}$

14.  $\frac{6}{8}$       a.  $\frac{10}{12}$       b.  $\frac{3}{4}$       c.  $\frac{24}{32}$       15.  $\frac{3}{7}$       a.  $\frac{6}{14}$       b.  $\frac{14}{28}$       c.  $\frac{21}{49}$

## Mixed Review

16. René and 6 friends decide to order lasagna. Each tray of lasagna is cut into 12 pieces. How many trays of lasagna will they have to buy in order for everyone to get 3 pieces? How many pieces will be left over?
- \_\_\_\_\_
- \_\_\_\_\_

17. Andy bought a pack of 16 pencils and gave 4 pencils away to friends. Write two equivalent fractions to represent the part of the pencils that Andy gave away.
- \_\_\_\_\_
- \_\_\_\_\_

Solve the equation.

18.  $5 \times n = 60$       19.  $60 \div n = 6$       20.  $75 + n = 90$       21.  $n - 3 = 9$

22.  $n \times 8 = 32$       23.  $144 \div n = 12$       24.  $26 + n = 64$       25.  $18 - n = 7$

## Compare and Order Fractions

Rename, using the LCM, and compare.

Write  $<$ ,  $>$ , or  $=$  in each  $\bigcirc$ .

- |   |  |   |   |
|---|--|---|---|
| 1. $\frac{3}{12} \bigcirc \frac{5}{8}$    | 2. $\frac{2}{8} \bigcirc \frac{7}{32}$   | 3. $\frac{6}{8} \bigcirc \frac{3}{9}$   | 4. $\frac{2}{3} \bigcirc \frac{6}{9}$   |
| 5. $\frac{5}{6} \bigcirc \frac{3}{4}$     | 6. $\frac{3}{15} \bigcirc \frac{1}{3}$   | 7. $\frac{6}{22} \bigcirc \frac{3}{11}$ | 8. $\frac{3}{7} \bigcirc \frac{6}{21}$  |
| 9. $\frac{5}{6} \bigcirc \frac{5}{8}$     | 10. $\frac{3}{7} \bigcirc \frac{11}{14}$ | 11. $\frac{7}{12} \bigcirc \frac{3}{8}$ | 12. $\frac{9}{10} \bigcirc \frac{6}{7}$ |
| 13. $\frac{12}{40} \bigcirc \frac{6}{10}$ | 14. $\frac{4}{5} \bigcirc \frac{2}{4}$   | 15. $\frac{4}{7} \bigcirc \frac{1}{2}$  | 16. $\frac{3}{4} \bigcirc \frac{8}{9}$  |

Write in order from least to greatest.

- |  |  |   |
|--|--|---|
| 17. $\frac{2}{5}, \frac{2}{3}, \frac{4}{15}$ | 18. $\frac{2}{3}, \frac{3}{4}, \frac{7}{12}$ | 19. $\frac{7}{9}, \frac{1}{2}, \frac{11}{18}$ |
| _____  | _____  | _____   |
| 20. $\frac{5}{6}, \frac{1}{4}, \frac{5}{12}$ | 21. $\frac{4}{5}, \frac{7}{10}, \frac{1}{2}$ | 22. $\frac{9}{15}, \frac{2}{3}, \frac{2}{5}$  |
| _____  | _____  | _____   |

### Mixed Review

- |                     |                         |                 |                    |
|---------------------|-------------------------|-----------------|--------------------|
| 23. $16 \times 15$  | 24. $2 \overline{)698}$ | 25. $5.7 + 6.8$ | 26. $1.2 \times 3$ |
| _____               | _____                   | _____           | _____              |
| 27. $20 + (30 - 2)$ | 28. $28 \times 26$      | 29. $67 - 28$   | 30. $6.6 + 7.8$    |
| _____               | _____                   | _____           | _____              |
31. Petra loves animals. She has twelve pets in all, four of which are rabbits. Write a fraction to describe the number of rabbits she has.
- \_\_\_\_\_
32. Flora's Flowers sells 3 roses for \$13.50. The Green Thumb sells 4 roses for \$15.00. Discount Flowers sells 6 roses for \$23.00. Who sells roses at the lowest price?
- \_\_\_\_\_



## Simplest Form

Tell whether the fraction is in simplest form. Write *yes* or *no*.

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

2.  $\frac{6}{8}$  \_\_\_\_\_

3.  $\frac{7}{21}$  \_\_\_\_\_

4.  $\frac{14}{15}$  \_\_\_\_\_

5.  $\frac{12}{15}$  \_\_\_\_\_

6.  $\frac{7}{9}$  \_\_\_\_\_

Write each fraction in simplest form.

7.  $\frac{4}{10}$  \_\_\_\_\_

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

9.  $\frac{6}{12}$  \_\_\_\_\_

10.  $\frac{6}{15}$  \_\_\_\_\_

11.  $\frac{2}{3}$  \_\_\_\_\_

12.  $\frac{4}{16}$  \_\_\_\_\_

13.  $\frac{2}{8}$  \_\_\_\_\_

14.  $\frac{8}{12}$  \_\_\_\_\_

15.  $\frac{8}{24}$  \_\_\_\_\_

16.  $\frac{3}{9}$  \_\_\_\_\_

17.  $\frac{4}{15}$  \_\_\_\_\_

18.  $\frac{7}{17}$  \_\_\_\_\_

## Mixed Review

Solve.

19.  $3,000 \div 100$

20.  $485 \div 100$

21.  $48,000 \div 200$

22.  $15.68 \times 3$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

23. Jean-Paul uses  $\frac{1}{3}$  cup walnuts,  $\frac{1}{8}$  cup chocolate chips, and  $\frac{1}{2}$  cup coconut in his cookie recipe. Which of these ingredients does he use the most? Use fraction bars to explain your answer.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

24. Mary ran  $\frac{3}{4}$  mile, Lila ran  $\frac{2}{3}$  mile, and Sue ran  $\frac{3}{8}$  mile. Who ran the farthest? Draw a diagram to solve.

\_\_\_\_\_

## Understand Mixed Numbers

### Vocabulary

Complete.

1. A \_\_\_\_\_ is made up of a whole number and a fraction.

For 2–5, use the figures at the right.

2. How many whole figures are shaded?

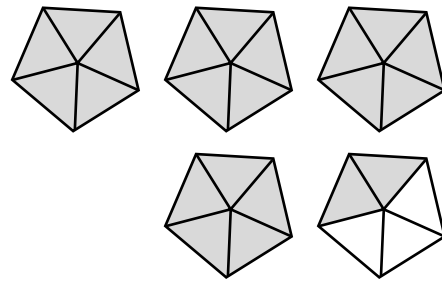
\_\_\_\_\_

3. Into how many parts is each figure divided?

\_\_\_\_\_

4. How many parts of the last figure are shaded?

\_\_\_\_\_



5. Write a fraction and a mixed number for the figures.

\_\_\_\_\_

Write each fraction as a mixed number.

6.  $\frac{22}{7}$  \_\_\_\_\_

7.  $\frac{7}{5}$  \_\_\_\_\_

8.  $\frac{19}{4}$  \_\_\_\_\_

9.  $\frac{13}{2}$  \_\_\_\_\_

Write each mixed number as a fraction.

10.  $4\frac{2}{3}$  \_\_\_\_\_

11.  $1\frac{4}{6}$  \_\_\_\_\_

12.  $3\frac{2}{5}$  \_\_\_\_\_

13.  $2\frac{2}{4}$  \_\_\_\_\_

### Mixed Review

14. Sam watched 10 cars drive past him. Of those cars, 6 were white. Write a fraction to describe the fraction of white cars.

\_\_\_\_\_

15. Maria takes 6 classes. In 5 of those classes, she has an A. Write a fraction to describe the fraction of classes in which she has an A.

\_\_\_\_\_



## Problem Solving Strategy

### Make a Model

Make a model to solve.

1. Samantha bought 3 packets of stickers. Each packet contains 100 stickers. If she divides all of the stickers evenly among 6 friends and herself, how many stickers are left over?  
\_\_\_\_\_
2. One day,  $\frac{2}{8}$  of the patients brought to a veterinary hospital were rabbits,  $\frac{1}{2}$  were cats, and  $\frac{1}{4}$  were dogs. Which kind of animal did the vet see the most of that day?  
\_\_\_\_\_
3. James uses  $\frac{5}{6}$  meter of butcher paper to make one sign. How many meters of paper will he need to make 3 signs?  
\_\_\_\_\_
4. Brent decorated  $\frac{1}{6}$  of his sugar cookies with blue frosting,  $\frac{1}{4}$  with yellow frosting, and  $\frac{3}{8}$  with purple frosting. Which frosting was used the least?  
\_\_\_\_\_

### Mixed Review

Solve.

5. During the week, Carrie spent \$3.50 for a book. The next day her father gave her \$1.25. Then she went to a movie, which cost \$7.50. If she now has \$10.25, how much money did she have at the beginning of the week?  
\_\_\_\_\_
6. A pizza parlor has a special offer of a mini-pizza with one topping. Customers can choose thin or thick crust, and they have 4 choices of toppings: pepperoni, sausage, extra cheese, or olives. How many choices do customers have?  
\_\_\_\_\_

7.  $64 \div n = 8$   
\_\_\_\_\_

8.  $63 \div 3 = n$   
\_\_\_\_\_

9.  $121 \div n = 11$   
\_\_\_\_\_

10.  $n \div 7 = 7$   
\_\_\_\_\_

**Add and Subtract Like Fractions**

Find the sum or difference. Write it in simplest form.

1.  $\frac{5}{7} + \frac{1}{7}$   
\_\_\_\_\_

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

3.  $\frac{4}{12} + \frac{8}{12}$   
\_\_\_\_\_

4.  $\frac{3}{11} + \frac{7}{11}$   
\_\_\_\_\_

5.  $\frac{2}{8} + \frac{4}{8}$   
\_\_\_\_\_

6.  $\frac{7}{15} + \frac{4}{15}$   
\_\_\_\_\_

7.  $\frac{5}{9} + \frac{1}{9}$   
\_\_\_\_\_

8.  $\frac{1}{4} + \frac{2}{4}$   
\_\_\_\_\_

9.  $\frac{4}{7} - \frac{2}{7}$   
\_\_\_\_\_

10.  $\frac{3}{5} - \frac{1}{5}$   
\_\_\_\_\_

11.  $\frac{6}{12} - \frac{2}{12}$   
\_\_\_\_\_

12.  $\frac{3}{4} - \frac{2}{4}$   
\_\_\_\_\_

13.  $\frac{7}{9} - \frac{2}{9}$   
\_\_\_\_\_

14.  $\frac{4}{6} - \frac{1}{6}$   
\_\_\_\_\_

15.  $\frac{3}{8} - \frac{2}{8}$   
\_\_\_\_\_

16.  $\frac{9}{10} - \frac{5}{10}$   
\_\_\_\_\_

17. George ran  $\frac{3}{8}$  mile on Sunday and  $\frac{2}{8}$  mile on Monday. How much farther did George run on Sunday than on Monday?  
\_\_\_\_\_18. Lona pulled the wagon for  $\frac{4}{10}$  hour. Eric pulled the wagon for  $\frac{1}{10}$  hour. For how long did they pull the wagon in all?  
\_\_\_\_\_**Mixed Review**

19. 
$$\begin{array}{r} 396 \\ \times 54 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 603,421 \\ - 82,798 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 1.62 \\ \times 66 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 0.26 \\ \times 0.29 \\ \hline \end{array}$$

23. 
$$27 \overline{)28.35}$$

24. 
$$18 \overline{)1,368}$$

## Add Unlike Fractions

Use fraction bars to find the sum.

1. 

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{6}$
---------------	---------------	---------------

\_\_\_\_\_

2. 

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

\_\_\_\_\_

3. 

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{4}$
---------------	---------------	---------------

\_\_\_\_\_

4. 

$\frac{1}{2}$	$\frac{1}{5}$
---------------	---------------

\_\_\_\_\_

5. 

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{3}$
----------------	----------------	----------------	---------------

\_\_\_\_\_

6. 

$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{5}$
----------------	----------------	----------------	---------------

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

9.  $\frac{3}{4} + \frac{1}{6}$

\_\_\_\_\_

10.  $\frac{7}{10} + \frac{1}{5}$

\_\_\_\_\_

11.  $\frac{4}{10} + \frac{1}{5}$

\_\_\_\_\_

12.  $\frac{1}{5} + \frac{7}{10}$

\_\_\_\_\_

### Mixed Review

13.  $\frac{1}{9} + \frac{4}{9}$

\_\_\_\_\_

14.  $\frac{7}{16} - \frac{3}{16}$

\_\_\_\_\_

15.  $\frac{3}{8} + \frac{3}{8}$

\_\_\_\_\_

16.  $\frac{9}{12} - \frac{4}{12}$

\_\_\_\_\_

17. 
$$\begin{array}{r} 4,913 \\ \times 16 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 56,794 \\ - 21,879 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 0.84 \\ \times 15 \\ \hline \end{array}$$

20.  $7 \overline{)869.68}$

21. 
$$\begin{array}{r} 77.4 \\ \times 1.8 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 150,631 \\ + 49,495 \\ \hline \end{array}$$

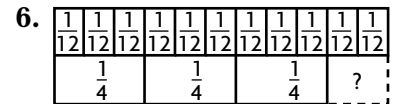
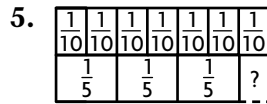
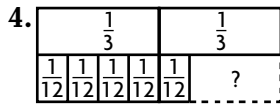
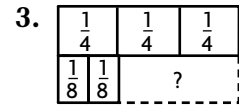
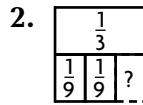
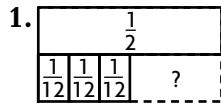
23. 
$$\begin{array}{r} 39.6 \\ \times 0.8 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 19.99 \\ + 6.51 \\ \hline \end{array}$$



## Subtract Unlike Fractions

Use fraction bars to find the difference.



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

8.  $\frac{4}{6} - \frac{5}{12}$

9.  $\frac{5}{6} - \frac{5}{12}$

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

11.  $\frac{6}{8} - \frac{1}{2}$

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

13.  $\frac{1}{2} - \frac{1}{8}$

14.  $\frac{9}{12} - \frac{2}{3}$

15.  $\frac{4}{6} - \frac{1}{12}$

16.  $\frac{7}{8} - \frac{1}{4}$

17.  $\frac{11}{12} - \frac{1}{3}$

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

### Mixed Review

19. 
$$\begin{array}{r} \$936.42 \\ \times \quad 13 \\ \hline \end{array}$$

20.  $5 \overline{)11,045}$

21. 
$$\begin{array}{r} 1.372 \\ \times \quad 1.3 \\ \hline \end{array}$$

22.  $9 \overline{)48.6}$

23.  $12 \times 6$  \_\_\_\_\_

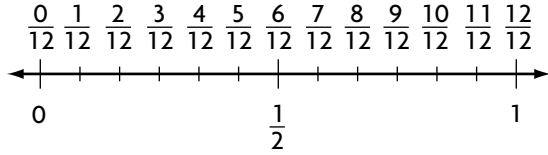
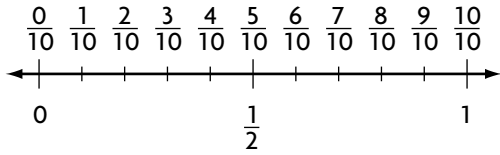
24.  $12 \times 11$  \_\_\_\_\_

25.  $12 \times 10$  \_\_\_\_\_

26.  $12 \times 9$  \_\_\_\_\_

### Estimate Sums and Differences

Write whether the fraction is closest to 0,  $\frac{1}{2}$ , or 1.



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

2.  $\frac{11}{12}$

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

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

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

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

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Estimate each sum or difference.

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

10.  $\frac{1}{2} + \frac{5}{8}$

11.  $\frac{1}{4} + \frac{5}{9}$

12.  $\frac{6}{8} + \frac{2}{4}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13.  $\frac{11}{12} - \frac{1}{9}$

14.  $\frac{5}{6} - \frac{3}{5}$

15.  $\frac{8}{9} - \frac{3}{4}$

16.  $\frac{7}{9} - \frac{5}{8}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Estimate to compare. Write  $<$  or  $>$  in each  $\bigcirc$ .

17.  $\frac{5}{8} + \frac{2}{8} \bigcirc \frac{1}{5} + \frac{2}{5}$

18.  $\frac{6}{7} - \frac{3}{8} \bigcirc \frac{7}{9} - \frac{3}{4}$

19.  $\frac{6}{9} + \frac{3}{5} \bigcirc \frac{7}{8} + \frac{3}{5}$

20.  $\frac{5}{6} - \frac{1}{4} \bigcirc \frac{3}{6} - \frac{1}{3}$

### Mixed Review

21.  $14 \overline{)37.38}$

22.  $\begin{array}{r} 56,789 \\ \times 17 \\ \hline \end{array}$

23.  $\begin{array}{r} 76.18 \\ \times 204 \\ \hline \end{array}$

24.  $0.07 \overline{)3.0086}$

**Use Least Common Denominators**

Name the LCD. Then add or subtract.

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

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

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

4.  $\frac{3}{4} - \frac{2}{5}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the sum or difference.

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

6.  $\frac{6}{8} - \frac{1}{2}$

7.  $\frac{3}{4} - \frac{5}{16}$

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9.  $\frac{5}{12} + \frac{1}{3}$

10.  $\frac{7}{8} - \frac{1}{4}$

11.  $\frac{2}{3} + \frac{1}{5}$

12.  $\frac{5}{7} - \frac{1}{3}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find the value of  $n$ .

13.  $\frac{3}{4} + n = 1$

14.  $\frac{7}{8} - n = \frac{3}{8}$

15.  $\frac{3}{10} + n = \frac{7}{10}$

16.  $n - \frac{3}{5} = \frac{1}{2}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17.  $n + \frac{5}{12} = \frac{7}{12}$

18.  $\frac{3}{16} + n = \frac{7}{16}$

19.  $\frac{1}{2} - n = \frac{3}{8}$

20.  $\frac{3}{4} - n = \frac{9}{12}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Mixed Review**

Name the least common multiple (LCM).

21. 6 and 8 \_\_\_\_\_

22. 2 and 7 \_\_\_\_\_

23. 3 and 9 \_\_\_\_\_

Solve.

24.  $1,328 \div 83$  \_\_\_\_\_

25. 
$$\begin{array}{r} 257,769 \\ + 44,883 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 42,789 \\ \times 56 \\ \hline \end{array}$$

**Add and Subtract Unlike Fractions**

Find the LCD. Then add or subtract.

1.  $\frac{1}{2} + \frac{2}{8}$   
\_\_\_\_\_

2.  $\frac{2}{5} + \frac{1}{3}$   
\_\_\_\_\_

3.  $\frac{6}{8} + \frac{1}{4}$   
\_\_\_\_\_

4.  $\frac{9}{12} - \frac{2}{4}$   
\_\_\_\_\_

Find the sum or difference. Write the answer in simplest form.

5.  $\frac{8}{16} - \frac{2}{8}$   
\_\_\_\_\_

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

7.  $\frac{7}{9} - \frac{1}{3}$   
\_\_\_\_\_

8.  $\frac{4}{15} + \frac{2}{3}$   
\_\_\_\_\_

9.  $\frac{3}{8} - \frac{1}{4}$   
\_\_\_\_\_

10.  $\frac{6}{12} - \frac{2}{6}$   
\_\_\_\_\_

11.  $\frac{9}{10} - \frac{4}{5}$   
\_\_\_\_\_

12.  $\frac{6}{8} - \frac{1}{2}$   
\_\_\_\_\_

13.  $\frac{5}{8} + \frac{5}{16}$   
\_\_\_\_\_

14.  $\frac{4}{5} + \frac{1}{10}$   
\_\_\_\_\_

15.  $\frac{5}{9} - \frac{7}{18}$   
\_\_\_\_\_

16.  $\frac{1}{2} - \frac{3}{14}$   
\_\_\_\_\_

17.  $\frac{2}{20} + \frac{4}{5}$   
\_\_\_\_\_

18.  $\frac{1}{3} - \frac{2}{9}$   
\_\_\_\_\_

19.  $\frac{2}{6} - \frac{5}{18}$   
\_\_\_\_\_

20.  $\frac{3}{8} + \frac{2}{4}$   
\_\_\_\_\_

**Mixed Review**

21. Jade swam  $\frac{1}{2}$  mile on Monday. On Wednesday she swam  $\frac{3}{8}$  mile. How many miles did Jade swim in all?

\_\_\_\_\_

22. Monty spent  $\frac{4}{5}$  hour mowing his lawn. Then he spent  $\frac{2}{10}$  hour mowing his neighbor's lawn. How much longer did it take Monty to mow his lawn than his neighbor's lawn?

\_\_\_\_\_

23.  $14 \overline{)39.9}$

24. 
$$\begin{array}{r} 367,112 \\ \times \quad 60 \\ \hline \end{array}$$

25.  $\frac{1}{4} + \frac{3}{4}$   
\_\_\_\_\_

26. 
$$\begin{array}{r} 36.725 \\ - 14.294 \\ \hline \end{array}$$

## Problem Solving Strategy

### Work Backward

Work backward to solve.

- Jerry's kitten is 19 cm tall and is 6 months old. The kitten grew 2 cm between the ages of 5 months and 6 months. It grew 3 cm between the ages of 4 months and 5 months. How tall was Jerry's kitten when it was 4 months old?  
\_\_\_\_\_
- Denise went shopping at the mall. She spent \$11.35 on a new T-shirt and \$2.25 for hair ribbons. Lunch cost \$4.50, and a drink cost \$1.25. She came home with \$10.65. How much money did Denise have before she went to the mall?  
\_\_\_\_\_
- Kirk grew a crystal in science class. On Monday it was  $\frac{13}{16}$  inch tall. It had grown  $\frac{1}{4}$  inch between Friday and Monday. It had grown  $\frac{1}{2}$  inch between Tuesday and Friday. How tall was Kirk's crystal on Tuesday?  
\_\_\_\_\_
- Terry planted a gladiolus bulb. On Wednesday it was  $\frac{7}{8}$  inch tall. It had grown  $\frac{1}{4}$  inch between Tuesday and Wednesday. It had grown  $\frac{3}{8}$  inch between Monday and Tuesday. How tall was Terry's gladiolus on Monday?  
\_\_\_\_\_

### Mixed Review

Write the value of the 4 in each of these numbers.

5. 14,790.12  
\_\_\_\_\_

6. 0.4913  
\_\_\_\_\_

7. 499,765,315  
\_\_\_\_\_

8. 0.045  
\_\_\_\_\_

Solve.

9. 
$$\begin{array}{r} 4.80 \\ 6.62 \\ + 9.90 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 17.59 \\ 33.81 \\ + 67.08 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 19,515 \\ 7,563 \\ + 27,480 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} \$15.99 \\ 15.99 \\ + 15.99 \\ \hline \end{array}$$

## Add Mixed Numbers

Find the sum in simplest form. Estimate to check.

$$\begin{array}{r} 1. \quad 2\frac{3}{8} \\ + 3\frac{1}{4} \\ \hline \end{array}$$

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

$$\begin{array}{r} 3. \quad 1\frac{5}{12} \\ + 2\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 3\frac{5}{8} \\ + 3\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 1\frac{1}{10} \\ + 4\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 3\frac{1}{9} \\ + 4\frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 2\frac{3}{5} \\ + 5\frac{7}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 4\frac{1}{12} \\ + 2\frac{1}{3} \\ \hline \end{array}$$

**Algebra** Find the value of  $n$ .

$$9. \quad 3\frac{1}{4} + 3\frac{7}{8} = n \quad \underline{\hspace{2cm}}$$

$$10. \quad n + 5\frac{3}{10} = 8\frac{1}{10} \quad \underline{\hspace{2cm}}$$

$$11. \quad 7\frac{2}{3} + n = 9\frac{1}{12} \quad \underline{\hspace{2cm}}$$

$$12. \quad 2\frac{2}{3} + n = 6\frac{5}{6} \quad \underline{\hspace{2cm}}$$

$$13. \quad n + 3\frac{5}{6} = 5\frac{1}{3} \quad \underline{\hspace{2cm}}$$

$$14. \quad n + n = 8\frac{1}{2} \quad \underline{\hspace{2cm}}$$

$$15. \quad 5\frac{5}{12} + 2\frac{1}{6} = n \quad \underline{\hspace{2cm}}$$

$$16. \quad 8\frac{2}{9} + n = 9\frac{5}{9} \quad \underline{\hspace{2cm}}$$

## Mixed Review

17. Tim and Al are making a tower. They each built a separate section. Tim's section was  $\frac{7}{8}$  foot tall, and Al's section was  $\frac{1}{2}$  foot tall. How tall will the tower be when they join the sections?
- \_\_\_\_\_

18. Harriet and Felicia worked for the local charity. Harriet worked 5 hours, and Felicia worked 3 hours more than Harriet. How many hours did the girls work for the charity altogether?
- \_\_\_\_\_

$$19. \quad \begin{array}{r} 21.376 \\ + 9.653 \\ \hline \end{array}$$

$$20. \quad \begin{array}{r} 145.637 \\ - 18.910 \\ \hline \end{array}$$

$$21. \quad \$10 + (\$6 - n) \text{ if } n = \$3 \quad \underline{\hspace{2cm}}$$

$$22. \quad 5(3 \times 7) = n \quad \underline{\hspace{2cm}}$$



## Subtract Mixed Numbers

Find the difference in simplest form. Estimate to check.

1. 
$$\begin{array}{r} 3\frac{7}{10} \\ -1\frac{2}{5} \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 5\frac{3}{4} \\ -2\frac{1}{8} \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 8\frac{5}{6} \\ -2\frac{1}{12} \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 7\frac{1}{2} \\ -4\frac{1}{6} \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 9\frac{9}{10} \\ -4\frac{3}{5} \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 5\frac{4}{9} \\ -3\frac{1}{3} \\ \hline \end{array}$$

**Algebra** Find the value of  $n$ .

7.  $4\frac{7}{8} - 2\frac{3}{4} = n$  \_\_\_\_\_

8.  $5\frac{4}{5} - 3\frac{n}{5} = 2\frac{1}{5}$  \_\_\_\_\_

9.  $n - 2\frac{1}{4} = 1\frac{1}{6}$  \_\_\_\_\_

10.  $5\frac{7}{12} - 3\frac{6}{n} = 2\frac{1}{12}$  \_\_\_\_\_

11.  $9\frac{5}{6} - n = 5\frac{1}{6}$  \_\_\_\_\_

12.  $7\frac{3}{8} - n = 5\frac{1}{8}$  \_\_\_\_\_

13.  $6\frac{3}{4} - 4\frac{n}{4} = 2\frac{1}{2}$  \_\_\_\_\_

14.  $3\frac{6}{8} - 2\frac{5}{n} = 1\frac{1}{8}$  \_\_\_\_\_

## Mixed Review

15. Sam made the table at the right to keep track of how much wood he had for projects. He forgot to enter some of the numbers. Complete the table.

16. Each week Sam will work  $3\frac{1}{2}$  hours on Wednesday and  $4\frac{1}{4}$  hours on Friday. How many hours will he work each week?

\_\_\_\_\_

WOOD FOR PROJECTS			
Type of Wood	Feet Started With	Feet Used	Feet Left
Oak	$15\frac{1}{2}$	$9\frac{1}{4}$	_____
Pine	$22\frac{5}{8}$	_____	$10\frac{1}{4}$
Maple	_____	$12\frac{3}{4}$	$2\frac{1}{6}$
Cherry	$20\frac{3}{4}$	$5\frac{3}{8}$	_____

## Subtraction With Renaming

Use fraction bars to find the difference.

$$\begin{array}{r} 1. \quad 3\frac{2}{3} \\ - \quad 1\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 7\frac{1}{4} \\ - 3\frac{3}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 4\frac{3}{10} \\ - 2\frac{4}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 6\frac{2}{3} \\ - 4\frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 8\frac{1}{2} \\ - 1\frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 3\frac{1}{8} \\ - 1\frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 7\frac{1}{10} \\ - 4\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 10\frac{3}{8} \\ - 5\frac{3}{4} \\ \hline \end{array}$$

$$9. \quad 6\frac{11}{12} - 2\frac{2}{3} \quad \underline{\hspace{2cm}}$$

$$10. \quad 4\frac{1}{5} - 1\frac{7}{10} \quad \underline{\hspace{2cm}}$$

$$11. \quad 5\frac{5}{8} - 1\frac{3}{4} \quad \underline{\hspace{2cm}}$$

$$12. \quad 5\frac{1}{2} - 2\frac{7}{12} \quad \underline{\hspace{2cm}}$$

$$13. \quad 8\frac{1}{6} - 4\frac{5}{12} \quad \underline{\hspace{2cm}}$$

$$14. \quad 7\frac{1}{4} - 6\frac{7}{12} \quad \underline{\hspace{2cm}}$$

### Mixed Review

15. Stacey had 3 cakes for her party. She had  $\frac{1}{8}$  of a cake left after the party. How much cake was eaten at her party?
- \_\_\_\_\_

16. Martha spent  $2\frac{1}{2}$  hours reading on Saturday. She spent  $\frac{3}{4}$  of an hour reading on Sunday. How many hours did she spend reading this weekend?
- \_\_\_\_\_

$$17. \quad 0.3 \overline{)144.9}$$

$$\begin{array}{r} 18. \quad 76,592 \\ \times \quad 104 \\ \hline \end{array}$$

$$19. \quad n \times 11 = 77 \quad \underline{\hspace{2cm}}$$

$$20. \quad \frac{6}{9} - \frac{1}{3} = \underline{\hspace{2cm}}$$

$$\begin{array}{r} 21. \quad 256,719 \\ \times \quad 0.3 \\ \hline \end{array}$$

$$22. \quad \frac{7}{12} - \frac{3}{12} = \underline{\hspace{2cm}} \quad 23. \quad 12 \overline{)543.6}$$



**Practice with Mixed Numbers**

Add or subtract. Write the answer in simplest form. Estimate to check.

1. 
$$\begin{array}{r} 3\frac{1}{4} \\ -2\frac{7}{8} \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 2\frac{1}{2} \\ -1\frac{3}{5} \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 5\frac{7}{12} \\ +3\frac{1}{8} \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 5\frac{3}{8} \\ -1\frac{5}{16} \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 8\frac{9}{10} \\ -5\frac{1}{5} \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 9\frac{2}{8} \\ +3\frac{5}{12} \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 6\frac{4}{9} \\ +10\frac{3}{18} \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 6\frac{2}{3} \\ -2\frac{1}{12} \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 7\frac{2}{3} \\ +1\frac{5}{12} \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 8\frac{5}{9} \\ -3\frac{1}{3} \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 5\frac{5}{12} \\ +2\frac{1}{6} \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 12\frac{1}{2} \\ -4\frac{1}{3} \\ \hline \end{array}$$

**Algebra** Find the value of  $n$ .

13.  $3\frac{1}{4} + n = 7\frac{1}{8}$  \_\_\_\_\_

14.  $6\frac{5}{6} - n = 2\frac{2}{3}$  \_\_\_\_\_

15.  $9\frac{5}{9} - n = 8\frac{2}{9}$  \_\_\_\_\_

16.  $n + 4\frac{2}{3} = 8\frac{1}{2}$  \_\_\_\_\_

**Mixed Review**

17. Write  $\frac{7}{8}$  as a decimal. \_\_\_\_\_

18.  $3.78 + n$  if  $n = 4.59$  \_\_\_\_\_

19.  $0.7 \overline{)6.58}$

20.  $\frac{1}{5} + \frac{4}{5}$  \_\_\_\_\_

21. Find the greatest common factor of 36 and 60.  
\_\_\_\_\_22. Find the least common multiple of 8 and 10.  
\_\_\_\_\_

## Problem Solving Skill

### Multistep Problems

1. Emily used wallpaper border to outline her window. She used  $6\frac{1}{3}$  yards to outline the door and  $1\frac{1}{6}$  yards to outline a shelf. She used  $9\frac{1}{2}$  yards of border in all. How much border did she use for the window?  

---
2. On Friday Jake had done a total of 125 push-ups in five days. He did 20 on Monday, 30 on Tuesday, 15 on Wednesday, and 20 on Thursday. How many push-ups did he do on Friday?  

---
3. Dirk spent  $3\frac{3}{4}$  hours outside on Saturday. During that time he spent  $1\frac{1}{2}$  hours at the park and  $1\frac{1}{4}$  hours in a friend's yard. He also rode his bicycle. How much time did he spend riding his bicycle?  

---
4. Terry saved \$60 to spend on a party for her mother. She spent \$25 for a cake and \$12 for party decorations. She spent the rest on a gift. How much did she spend on the gift?  

---

### Mixed Review

Solve.

5. Marlinda bought 32 inches of butcher paper for her project. She used  $15\frac{1}{4}$  inches. How much butcher paper did she have left?  

---
6. Ingrid planted a garden. In the garden  $\frac{1}{2}$  of the rows are tomatoes,  $\frac{1}{4}$  of the rows are green beans, and the rest of the rows are lettuce. What fraction of the rows in the garden are lettuce?  

---

Rename each fraction as a mixed number.

7.  $\frac{13}{5} =$  \_\_\_\_\_

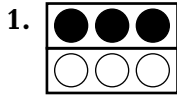
8.  $\frac{26}{12} =$  \_\_\_\_\_

9.  $\frac{19}{2} =$  \_\_\_\_\_

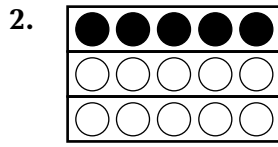
10.  $\frac{15}{4} =$  \_\_\_\_\_

## Multiply Fractions and Whole Numbers

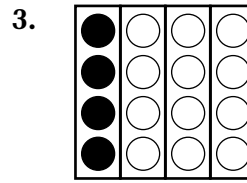
Write the number sentence each model represents.



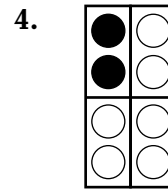
\_\_\_\_\_



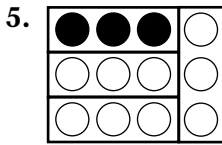
\_\_\_\_\_



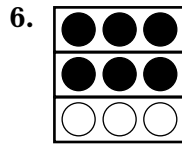
\_\_\_\_\_



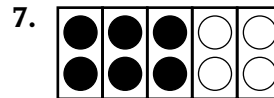
\_\_\_\_\_



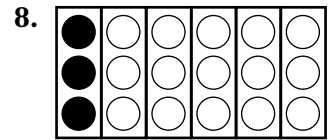
\_\_\_\_\_



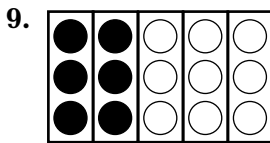
\_\_\_\_\_



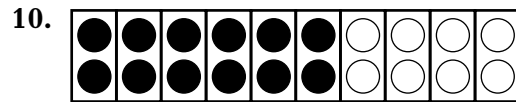
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

Find the product.

11.  $\frac{1}{6} \times 18 =$  \_\_\_\_\_

12.  $\frac{1}{7} \times 21 =$  \_\_\_\_\_

13.  $\frac{1}{4} \times 16 =$  \_\_\_\_\_

14.  $\frac{3}{8} \times 24 =$  \_\_\_\_\_

15.  $\frac{2}{7} \times 14 =$  \_\_\_\_\_

16.  $\frac{5}{8} \times 24 =$  \_\_\_\_\_

17.  $12 \times \frac{3}{4} =$  \_\_\_\_\_

18.  $24 \times \frac{5}{6} =$  \_\_\_\_\_

19.  $18 \times \frac{7}{9} =$  \_\_\_\_\_

### Mixed Review

20. Write  $\frac{75}{100}$  in simplest form.

\_\_\_\_\_

21. Round 65.0798 to the nearest tenth.

\_\_\_\_\_

22.  $6.571 + 3.1$

\_\_\_\_\_

23.  $17.012 - 5.1$

\_\_\_\_\_

## Multiply a Fraction by a Fraction

Find the product. Write it in simplest form.

1.  $\frac{1}{3} \times \frac{1}{5}$

\_\_\_\_\_

2.  $\frac{2}{5} \times \frac{1}{4}$

\_\_\_\_\_

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

\_\_\_\_\_

4.  $\frac{5}{6} \times \frac{2}{3}$

\_\_\_\_\_

5.  $\frac{1}{6} \times \frac{1}{3}$

\_\_\_\_\_

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

\_\_\_\_\_

7.  $\frac{1}{4} \times \frac{2}{7}$

\_\_\_\_\_

8.  $\frac{4}{5} \times \frac{3}{8}$

\_\_\_\_\_

9.  $\frac{1}{6} \times \frac{7}{8}$

\_\_\_\_\_

10.  $\frac{3}{7} \times \frac{5}{8}$

\_\_\_\_\_

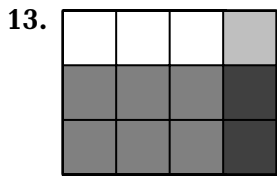
11.  $\frac{11}{12} \times \frac{4}{9}$

\_\_\_\_\_

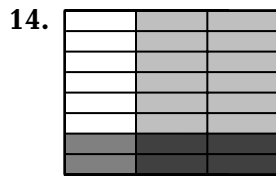
12.  $\frac{7}{9} \times \frac{5}{6}$

\_\_\_\_\_

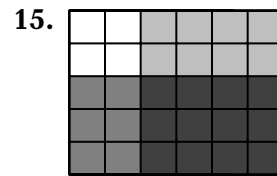
Write the number sentence each model represents.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

## Mixed Review

16. 
$$\begin{array}{r} 348.9 \\ \times 7.7 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 534.26 \\ \times 3.4 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 58,679 \\ -17,382 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 7.8747 \\ -0.9912 \\ \hline \end{array}$$

20.  $6 \overline{)432.6}$

21.  $195 \overline{)17,643.6}$

22.  $2.72 \overline{)0.056032}$



## Multiply Fractions and Mixed Numbers

Find the product. Draw fraction squares as needed.

1.  $\frac{2}{5} \times 1\frac{1}{3}$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

7.  $\frac{5}{6} \times 1\frac{2}{3}$

\_\_\_\_\_

8.  $\frac{3}{4} \times 2\frac{4}{5}$

\_\_\_\_\_

9.  $\frac{1}{3} \times 3\frac{2}{5}$

\_\_\_\_\_

10.  $\frac{2}{3} \times 2\frac{2}{3}$

\_\_\_\_\_

11.  $\frac{1}{2} \times 3\frac{5}{6}$

\_\_\_\_\_

12.  $\frac{3}{5} \times 1\frac{3}{4}$

\_\_\_\_\_

### Mixed Review

13. 
$$\begin{array}{r} 56,346 \\ -18,675 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 534,127 \\ - 5,621 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 836,142 \\ - 1,986 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 72,839 \\ + 45,615 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 2,586.50 \\ + 1,475.61 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 3,451.04 \\ + 2,194.60 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 4,536.70 \\ + 2,549.31 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 35.4849 \\ - 32.0792 \\ \hline \end{array}$$

## Multiply with Mixed Numbers

Complete each problem. Show how to simplify before you multiply.

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

6.  $1\frac{2}{7} \times 1\frac{1}{6}$

\_\_\_\_\_

Multiply. Write the answer in simplest form.

7.  $\frac{1}{2} \times 25$

\_\_\_\_\_

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

\_\_\_\_\_

9.  $3\frac{1}{2} \times 5\frac{1}{2}$

\_\_\_\_\_

10.  $\frac{3}{6} \times 12$

\_\_\_\_\_

11.  $3\frac{1}{4} \times \frac{1}{6} \times \frac{2}{3}$

\_\_\_\_\_

12.  $1\frac{1}{5} \times \frac{1}{4} \times 2\frac{1}{2}$

\_\_\_\_\_

Find the missing digit.

13.  $\frac{1}{3} \times \frac{n}{8} = \frac{5}{24}$

\_\_\_\_\_

14.  $3 \times \frac{2}{n} = \frac{6}{7}$

\_\_\_\_\_

15.  $2\frac{n}{6} \times \frac{1}{8} = \frac{13}{48}$

\_\_\_\_\_

### Mixed Review

16. 
$$\begin{array}{r} 326 \\ \times 12 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 475 \\ \times 38 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 396 \\ \times 7 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 491 \\ \times 67 \\ \hline \end{array}$$

Add  $\frac{2}{5}$  to each number.

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

\_\_\_\_\_

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

\_\_\_\_\_

22.  $\frac{8}{10}$

\_\_\_\_\_

23.  $\frac{9}{2}$

\_\_\_\_\_

24.  $2\frac{1}{5}$

\_\_\_\_\_

25. 2.4

\_\_\_\_\_



## Problem Solving Skill

### Sequence and Prioritize Information

Sequence and prioritize information to solve.

- Julie took \$100.00 to the store. She spent \$15.00 on fruit, 3 times that much on meat, and \$24.45 less on vegetables than she spent on meat. How much change did Julie have?  
\_\_\_\_\_
- Mrs. Brown's Girl Scout troop had a car wash to earn some funds. They saved  $\frac{1}{6}$  of the money. They used  $\frac{1}{2}$  of the remaining money to go horse-back riding. They then had \$100.00 left. How much did they initially make washing cars?  
\_\_\_\_\_
- The school's track team ran the 220 relay in 7 minutes 46 seconds at their first track meet. The next meet, their time was 42 seconds shorter. At the next, their improvement was twice as great. What was their total running time at the last meet?  
\_\_\_\_\_
- Sam's birthday is 186 days after Jim's birthday. Susan's is 24 days after Jim's. Sam was born on September 6th. What day was Susan born on if it wasn't a leap year?  
\_\_\_\_\_

### Mixed Review

$$\begin{array}{r} 5. \quad 2.35 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 8.64 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 4.05 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 6.42 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 6.34 \\ -0.09 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 8.36 \\ +2.95 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 1.07 \\ -0.09 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 5.9 \\ -0.16 \\ \hline \end{array}$$

Write the least common multiple (LCM).

13. 6 and 12  
\_\_\_\_\_

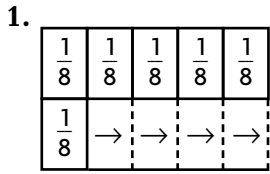
14. 7 and 20  
\_\_\_\_\_

15. 4 and 19  
\_\_\_\_\_

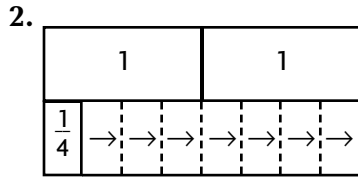
Name \_\_\_\_\_

# Divide Fractions

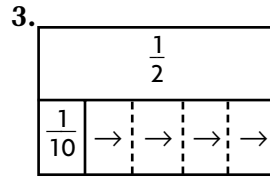
Write a number sentence for each model.



\_\_\_\_\_

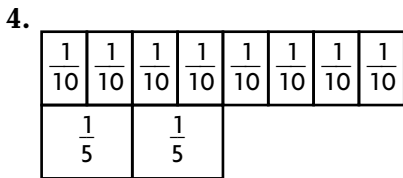


\_\_\_\_\_

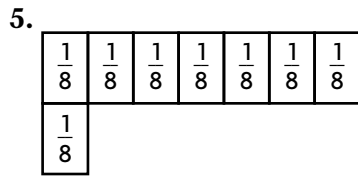


\_\_\_\_\_

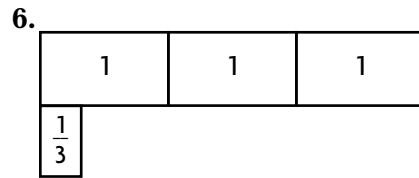
Use fraction bars to find the quotient.



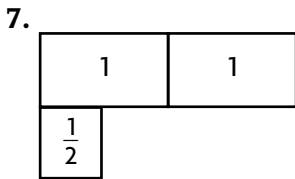
$\frac{8}{10} \div \frac{2}{5} =$  \_\_\_\_\_



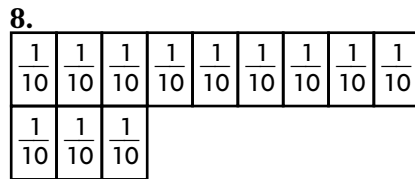
$\frac{7}{8} \div \frac{1}{8} =$  \_\_\_\_\_



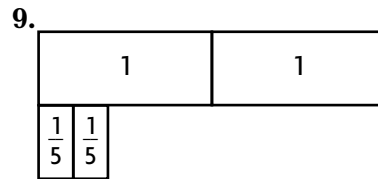
$3 \div \frac{1}{3} =$  \_\_\_\_\_



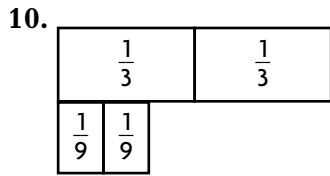
$2 \div \frac{1}{2} =$  \_\_\_\_\_



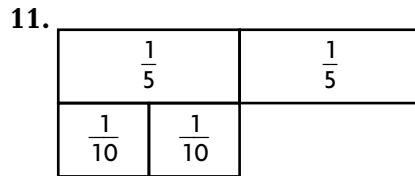
$\frac{9}{10} \div \frac{3}{10} =$  \_\_\_\_\_



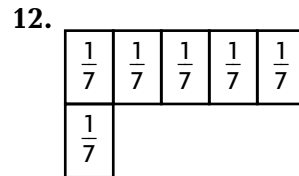
$2 \div \frac{2}{5} =$  \_\_\_\_\_



$\frac{2}{3} \div \frac{2}{9} =$  \_\_\_\_\_



$\frac{2}{5} \div \frac{2}{10} =$  \_\_\_\_\_



$\frac{5}{7} \div \frac{1}{7} =$  \_\_\_\_\_

## Mixed Review

13. Write two fractions equivalent to  $\frac{5}{8}$ .

\_\_\_\_\_

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

\_\_\_\_\_

15.  $5\frac{3}{4} - 1\frac{2}{3}$

\_\_\_\_\_



## Reciprocals

Are the two numbers reciprocals? Write *yes* or *no*.

1.  $3\frac{1}{3}$  and  $\frac{3}{10}$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

4. 12 and  $\frac{1}{12}$

\_\_\_\_\_

Write the reciprocal of each number.

5.  $\frac{9}{2}$

\_\_\_\_\_

6. 15

\_\_\_\_\_

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

\_\_\_\_\_

8.  $\frac{1}{10}$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

11. 4

\_\_\_\_\_

12.  $\frac{6}{7}$

\_\_\_\_\_

13.  $\frac{1}{9}$

\_\_\_\_\_

14.  $\frac{15}{4}$

\_\_\_\_\_

**Algebra** Find the value of  $n$ .

15.  $\frac{2}{n} \times \frac{5}{2} = 1$

\_\_\_\_\_

16.  $3 \times \frac{n}{3} = 1$

\_\_\_\_\_

17.  $1\frac{1}{2} \times \frac{n}{3} = 1$

\_\_\_\_\_

18.  $n \times \frac{1}{9} = 1$

\_\_\_\_\_

Multiply. Use the Associative and Commutative Properties of Multiplication to help you.

19.  $\frac{4}{7} \times \frac{3}{8} \times \frac{7}{4}$

\_\_\_\_\_

20.  $5 \times \frac{2}{3} \times \frac{1}{5} \times 12$

\_\_\_\_\_

21.  $\frac{3}{7} \times \frac{1}{8} \times 12 \times \frac{7}{3}$

\_\_\_\_\_

## Mixed Review

Find the sum or difference. Write it in simplest form.

22.  $\frac{7}{9} - \frac{5}{9}$

\_\_\_\_\_

23.  $\frac{3}{5} + \frac{1}{6}$

\_\_\_\_\_

24.  $1\frac{3}{8} + 2\frac{5}{8}$

\_\_\_\_\_

25.  $5\frac{9}{10} - 3\frac{1}{3}$

\_\_\_\_\_

Divide.

26.  $0.3 \overline{)72.417}$

\_\_\_\_\_

27.  $28 \overline{)4,319}$

\_\_\_\_\_

28.  $2.71 \overline{)1.7615}$

\_\_\_\_\_

29.  $4,611 \overline{)7,715}$

\_\_\_\_\_

## Divide Whole Numbers by Fractions

Use fraction bars, patterns, or reciprocals to divide.

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

\_\_\_\_\_

2.  $3 \div \frac{3}{8}$

\_\_\_\_\_

3.  $2 \div \frac{4}{10}$

\_\_\_\_\_

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

\_\_\_\_\_

Divide.

5.  $8 \div \frac{4}{5}$

\_\_\_\_\_

6.  $3 \div \frac{2}{3}$

\_\_\_\_\_

7.  $10 \div \frac{5}{7}$

\_\_\_\_\_

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

\_\_\_\_\_

9.  $12 \div \frac{2}{5}$

\_\_\_\_\_

10.  $8 \div \frac{1}{9}$

\_\_\_\_\_

11.  $9 \div \frac{3}{7}$

\_\_\_\_\_

12.  $8 \div \frac{5}{6}$

\_\_\_\_\_

Find the missing number.

13.  $7 \div \frac{6}{7} =$  \_\_\_\_\_

14.  $\blacksquare \div \frac{3}{4} = 6$  \_\_\_\_\_

15.  $3 \div \frac{\blacksquare}{9} = 5\frac{2}{5}$  \_\_\_\_\_

16. How many three-fourths are in 12? \_\_\_\_\_

17. How many two-sevenths are in 2? \_\_\_\_\_

18. How many one-fourths are in 9? \_\_\_\_\_

### Mixed Review

Find the sum or difference. Write it in simplest form.

19.  $\frac{1}{9} + \frac{5}{9}$

\_\_\_\_\_

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

\_\_\_\_\_

21.  $3\frac{5}{7} - 2\frac{4}{7}$

\_\_\_\_\_

22.  $4\frac{2}{3} + \frac{5}{9}$

\_\_\_\_\_

Write each fraction as a decimal.

23.  $\frac{7}{50}$

\_\_\_\_\_

24.  $\frac{19}{25}$

\_\_\_\_\_

25.  $\frac{49}{125}$

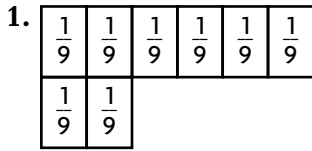
\_\_\_\_\_

26.  $\frac{390}{400}$

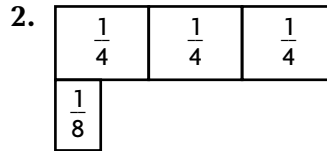
\_\_\_\_\_

## Divide Fractions

Write a division sentence for each model.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

Use reciprocals to write a multiplication problem for each division problem.

4.  $\frac{5}{8} \div \frac{1}{4}$

\_\_\_\_\_

5.  $\frac{7}{9} \div \frac{1}{9}$

\_\_\_\_\_

6.  $\frac{7}{10} \div \frac{1}{5}$

\_\_\_\_\_

7.  $\frac{4}{5} \div 2$

\_\_\_\_\_

Divide. Write the answer in simplest form.

8.  $\frac{4}{5} \div \frac{8}{15}$

\_\_\_\_\_

9.  $\frac{7}{10} \div \frac{1}{2}$

\_\_\_\_\_

10.  $\frac{5}{6} \div \frac{1}{2}$

\_\_\_\_\_

11.  $\frac{6}{15} \div \frac{1}{5}$

\_\_\_\_\_

12.  $\frac{1}{6} \div \frac{2}{3}$

\_\_\_\_\_

13.  $\frac{7}{9} \div \frac{2}{3}$

\_\_\_\_\_

14.  $\frac{9}{10} \div \frac{2}{5}$

\_\_\_\_\_

15.  $\frac{9}{20} \div \frac{3}{4}$

\_\_\_\_\_

16.  $\frac{5}{8} \div \frac{5}{16}$

\_\_\_\_\_

17.  $\frac{5}{6} \div \frac{2}{3}$

\_\_\_\_\_

18.  $\frac{12}{21} \div \frac{4}{7}$

\_\_\_\_\_

19.  $\frac{5}{8} \div \frac{3}{4}$

\_\_\_\_\_

## Mixed Review

Write the common factors for each pair of numbers.

20. 30, 40

\_\_\_\_\_

21. 18, 28

\_\_\_\_\_

22. 12, 42

\_\_\_\_\_

23. 15, 30

\_\_\_\_\_

Write the greatest common factor for each pair of numbers.

24. 9, 18

\_\_\_\_\_

25. 22, 24

\_\_\_\_\_

26. 25, 30

\_\_\_\_\_

27. 14, 49

\_\_\_\_\_

## Problem Solving Strategy

### Solve a Simpler Problem

Use a simpler problem to solve.

The Robinsons drove for 4,000 miles during their vacation. This was  $\frac{4}{5}$  the distance the Jones family drove during their vacation. The Edwards family did not drive, but flew 6,000 miles to their vacation spot. The Bowie family traveled  $\frac{1}{2}$  of the distance of the Edwards family.

- |  |  |
|--|--|
| <p>1. What equation can you write to find <math>n</math> if <math>n</math> equals the number of miles the Jones family drove?</p> <p>_____</p> | <p>2. Look at Problem 1. What is a simpler equation you could write? How many miles did the Jones family drive?</p> <p>_____</p> |
| <p>3. How many miles did the Bowie family drive?</p> <p>_____</p> <p>_____</p> <p>_____</p>  | <p>4. How many more miles did the Robinson family drive than the Bowie family?</p> <p>_____</p>                                  |

### Mixed Review

- |  |   |
|--|---|
| <p>5. John started exercising at 4:30 P.M. and ended at 6:15 P.M. How long did he spend exercising?</p> <p>_____</p> | <p>6. Solve.</p> $3,000 \div \frac{3}{4}$ <p>_____</p>  |
| <p>7. Solve.</p> $34,532 - 21,412$ <p>_____</p>  | <p>8. Mary wants to put a border around her picture. The picture is 6 inches wide and 5 inches high. How much border does she need to go around the picture?</p> <p>_____</p> |

## Integers

Write an integer to represent each situation.

1. 15 steps behind

\_\_\_\_\_

2. 10 days ahead of schedule

\_\_\_\_\_

3. a gain of 35 yards

\_\_\_\_\_

4. 14 days after school started

\_\_\_\_\_

5. 20 minutes until arrival time

\_\_\_\_\_

6. a \$75.00 withdrawal from the bank

\_\_\_\_\_

Write the opposite of each integer.

7.  $-54$  \_\_\_\_\_

8.  $-36$  \_\_\_\_\_

9.  $+3$  \_\_\_\_\_

10.  $+14$  \_\_\_\_\_

11.  $-2$  \_\_\_\_\_

12.  $+289$  \_\_\_\_\_

13.  $+3,540$  \_\_\_\_\_

14.  $-2,560$  \_\_\_\_\_

Name each integer's absolute value.

15.  $|+36|$

\_\_\_\_\_

16.  $|-230|$

\_\_\_\_\_

17.  $|-1,003|$

\_\_\_\_\_

18.  $|+478|$

\_\_\_\_\_

19.  $|-29|$

\_\_\_\_\_

20.  $+3,660|$

\_\_\_\_\_

21.  $+496|$

\_\_\_\_\_

22.  $|-2|$

\_\_\_\_\_

## Mixed Review

23. Identify the addition property shown.  $67 + 4 = 4 + 67$

\_\_\_\_\_

24. Find  $n$  and identify the multiplication property shown.  $134 \times n = 0$

\_\_\_\_\_

Solve for  $n$ .

25.  $76 \times 8,954 = n$

\_\_\_\_\_

26.  $3.66 \times 0.56 = n$

\_\_\_\_\_

27.  $34 \times n = 306$

\_\_\_\_\_

28.  $96 \div n = 8$

\_\_\_\_\_

## Compare and Order Integers

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

1.  $-17 \bigcirc -16$       2.  $-10 \bigcirc +3$       3.  $-5 \bigcirc -7$       4.  $+3 \bigcirc -5$

Draw a number line to order each set of integers from greatest to least.

5.  $\leftarrow \text{-----} \rightarrow$   
 $+3, -4, -1, 0$

6.  $\leftarrow \text{-----} \rightarrow$   
 $+4, -2, +5, -1$

\_\_\_\_\_

\_\_\_\_\_

7.  $\leftarrow \text{-----} \rightarrow$   
 $+10, +4, -9, +2$

8.  $\leftarrow \text{-----} \rightarrow$   
 $-7, +2, -6, +6$

\_\_\_\_\_

\_\_\_\_\_

**Algebra** Name the integer that is 1 less.

9.  $-5$       10.  $+10$       11.  $-13$       12.  $+6$       13.  $-7$

\_\_\_\_\_

**Algebra** Name the integer that is 1 more.

14.  $0$       15.  $-9$       16.  $+8$       17.  $-5$       18.  $-1$

\_\_\_\_\_

## Mixed Review

Order the fractions from least to greatest.

19.  $\frac{1}{2}, \frac{1}{5}, \frac{3}{4}$  \_\_\_\_\_

20.  $\frac{5}{6}, \frac{1}{3}, \frac{3}{8}$  \_\_\_\_\_

21.  $\frac{3}{4}, \frac{3}{6}, \frac{3}{5}$  \_\_\_\_\_

22.  $\frac{2}{5}, \frac{1}{4}, \frac{2}{3}$  \_\_\_\_\_

Write the sum or difference.

23.  $\begin{array}{r} 284.03 \\ -192.91 \\ \hline \end{array}$

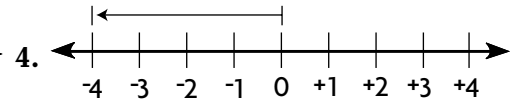
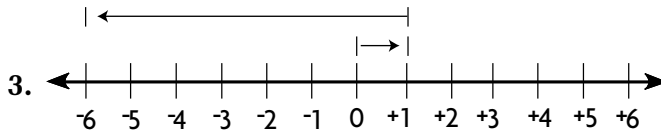
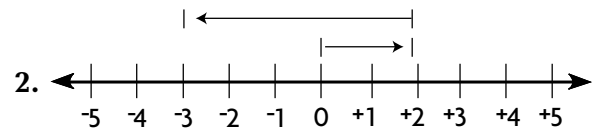
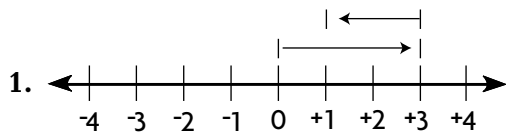
24.  $\begin{array}{r} 137.7 \\ +23.62 \\ \hline \end{array}$

25.  $\begin{array}{r} 457.6 \\ -18.78 \\ \hline \end{array}$

26.  $\begin{array}{r} 637.09 \\ -138.17 \\ \hline \end{array}$

## Add Integers

Write the addition number sentence modeled.



Find each sum.

5.  $+7 + -3$

\_\_\_\_\_

6.  $-6 + -4$

\_\_\_\_\_

7.  $+10 + -3$

\_\_\_\_\_

8.  $-4 + -3$

\_\_\_\_\_

9.  $-7 + +2$

\_\_\_\_\_

10.  $-3 + -2$

\_\_\_\_\_

11.  $+8 + -8$

\_\_\_\_\_

12.  $-6 + 0$

\_\_\_\_\_

13.  $-6 + +8$

\_\_\_\_\_

14.  $-3 + +2 + -5$

\_\_\_\_\_

15.  $-4 + -3 + -5$

\_\_\_\_\_

16.  $+7 + -3 + -3$

\_\_\_\_\_

**Reasoning** Without adding, tell whether the sum will be *negative, positive, or zero*.

17.  $+39 + -3$

\_\_\_\_\_

18.  $+3 + -20$

\_\_\_\_\_

19.  $+420 + -50$

\_\_\_\_\_

20.  $+352 + -352$

\_\_\_\_\_

21.  $-42 + +51$

\_\_\_\_\_

22.  $+36 + -36$

\_\_\_\_\_

23.  $+180 + -360$

\_\_\_\_\_

24.  $-95 + +95$

\_\_\_\_\_

## Mixed Review

Round to the nearest hundred.

25. 651

\_\_\_\_\_

26. 1,524

\_\_\_\_\_

27. 12,345,542

\_\_\_\_\_

28. 83,952

\_\_\_\_\_

Round to the value of the underlined digit.

29. 0.734

\_\_\_\_\_

30. 21.638

\_\_\_\_\_

31. 5.013

\_\_\_\_\_

32. 62.819

\_\_\_\_\_

**Subtract Integers**

Use counters to find each difference.

1.  $+7 - +3$

\_\_\_\_\_

2.  $-9 - +6$

\_\_\_\_\_

3.  $+7 - +6$

\_\_\_\_\_

4.  $-5 - +6$

\_\_\_\_\_

5.  $+10 - +1$

\_\_\_\_\_

6.  $-7 - +5$

\_\_\_\_\_

7.  $+8 - +4$

\_\_\_\_\_

8.  $-6 - +2$

\_\_\_\_\_

9.  $-8 - +2$

\_\_\_\_\_

10.  $+14 - +16$

\_\_\_\_\_

11.  $-4 - +4$

\_\_\_\_\_

12.  $+12 - +11$

\_\_\_\_\_

**Algebra** Complete.

13.  $-6 - +7 = -6 + \square$

14.  $-4 - +8 = -4 + \square$

15.  $-7 - +9 = -7 + \square$

16.  $+4 - +2 = +4 + \square$

17.  $-1 - +3 = -1 + \square$

18.  $+6 - +5 = +6 + \square$

19.  $+8 - +5 = +8 + \square$

20.  $-7 - +3 = -7 + \square$

21. In Minnesota, the temperature was reported to be  $6^{\circ}\text{F}$  at 6:00 a.m. After an expected cold front went through, the temperature was  $-15^{\circ}\text{F}$ . What was the change in temperature?

\_\_\_\_\_

**Mixed Review**Solve for  $n$ .

22.  $11.975 - 1.993 = n$

\_\_\_\_\_

23.  $23 \times n = 92$

\_\_\_\_\_

24.  $1\frac{1}{5} + n = 3\frac{3}{4}$

\_\_\_\_\_

25.  $\frac{1}{3} + \frac{n}{6} = \frac{5}{6}$

\_\_\_\_\_

26.  $81 \div n = 9$

\_\_\_\_\_

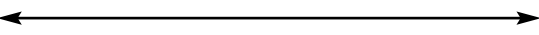
27.  $n + 0.74 = 0.86$

\_\_\_\_\_

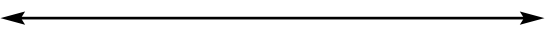


## Subtract Integers

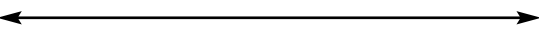
Draw a number line to find the difference.

1. 

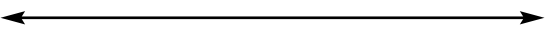
$-6 - +3$  \_\_\_\_\_

2. 

$+4 - +7$  \_\_\_\_\_

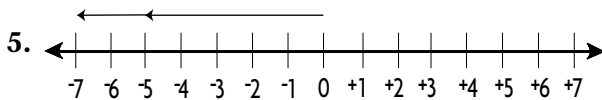
3. 

$-1 - +8$  \_\_\_\_\_

4. 

$+9 - +2$  \_\_\_\_\_

Write the subtraction equation modeled.



\_\_\_\_\_



\_\_\_\_\_

Find each difference.

7.  $+17 - +3$

\_\_\_\_\_

8.  $-8 - 0$

\_\_\_\_\_

9.  $-2 - +8$

\_\_\_\_\_

10.  $-9 - +7$

\_\_\_\_\_

11.  $+15 - +4$

\_\_\_\_\_

12.  $-6 - +7$

\_\_\_\_\_

13.  $+28 - +2$

\_\_\_\_\_

14.  $-7 - +5$

\_\_\_\_\_

**Algebra** Complete.

15.  $-7 - +4 = -7 + \square$

16.  $-3 - +6 = -3 + \square$

17.  $-2 - +5 = -2 + \square$

18.  $+1 - +8 = +1 + \square$

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

19.  $-3 + -6 \bigcirc -3 - +6$

20.  $-2 - +1 \bigcirc -9 + +4$

21.  $-7 + +5 \bigcirc -2 - +8$

22.  $-3 - +6 \bigcirc -7 + +5$

**Mixed Review**

Write as a decimal.

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

24.  $\frac{1}{2}$  \_\_\_\_\_

25.  $\frac{1}{5}$  \_\_\_\_\_

## Draw a Diagram

Draw a diagram to solve.

1. Sandra opened a checking account with \$200.00. She wrote a check for groceries for \$95.00 and a check for clothes for \$65.00. Later that week she withdrew \$85.00. She balanced her checkbook and realized she had overdrawn her account. How much money did she have to take to the bank to cover her overdraft and maintain a minimum of \$50.00 in the account?
- 

2. John went scuba diving and dove to a depth of 30 ft. After a few minutes he realized he had ascended 5 ft. Then he noticed the coral at the bottom so he decided to descend 12 ft. Finally, he ascended 22 ft to feed the fish before returning to the surface. At what depth did he feed the fish?
- 

3. Scott spent 8 hours driving to college. If his average speed was 55 mph, how many miles did Scott drive?
- 

4. There are 12 times as many players as coaches. There are 9 coaches. How many players are there?
- 

5. Mr. Downing went on a 100-day archaeological expedition. He traveled 15 of the days. What fraction of the days did he not travel?
- 

6. There were 63 people in a hotel. Then 7 checked out, and 3 times that number checked in. How many people are in the hotel now?
- 

## Mixed Review

Write as a fraction in simplest form.

7. 0.05 \_\_\_\_\_

8. 0.29 \_\_\_\_\_

9. 0.98 \_\_\_\_\_

10. 0.14 \_\_\_\_\_

11. 0.75 \_\_\_\_\_

12. 0.33 \_\_\_\_\_

## Graph Relationships

Write the ordered pairs. Then graph the ordered pairs.

1.

Input, $x$	10	15	20	25
Output, $y$	5	10	15	20

\_\_\_\_\_

2.

Input, $x$	6	7	8	9
Output, $y$	11	12	13	14

\_\_\_\_\_

3.

Input, $x$	10	9	8	7
Output, $y$	7	6	5	4

\_\_\_\_\_

4.

Input, $x$	2	3	4	5
Output, $y$	6	9	12	15

\_\_\_\_\_

5.

Length of Square's Side, $x$	4	5	6	7
Perimeter, $y$	16	20	24	28

\_\_\_\_\_

6.

Number of Quarters, $x$	1	2	3	4
Number of Nickels, $y$	5	10	15	20

\_\_\_\_\_

**Use Data** For 7–8, use the table.

Tickets sold, $x$	1	2	3	4
Money received, $y$	\$4	\$8	\$12	\$16

7. Write the ordered pairs. Then graph the ordered pairs.

\_\_\_\_\_

\_\_\_\_\_

8. How can you use the graph to find the amount of money 5 tickets cost?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

9. If  $x = 22$ , what is the value of  $(x + 48)$ ?

11. Find the mode of the data set:  
159, 156, 159, 166, 164, 162

10.  $45,679,231$   
 $+ 12,382,938$

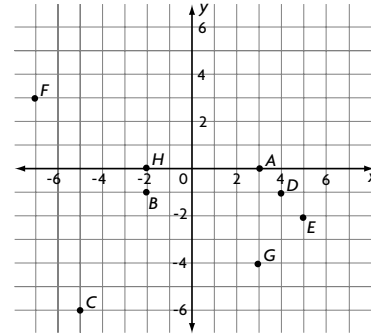
12. Find the mean of the data set in problem 11.

Name \_\_\_\_\_

## Graph Integers on the Coordinate Plane

For 1–8, identify the ordered pair for each point.

- |                  |                  |
|------------------|------------------|
| 1. Point A _____ | 2. Point B _____ |
| 3. Point C _____ | 4. Point D _____ |
| 5. Point E _____ | 6. Point F _____ |
| 7. Point G _____ | 8. Point H _____ |



Graph and label the ordered pairs on a coordinate plane.

- |                  |                  |                  |
|------------------|------------------|------------------|
| 9. $A (0, +7)$   | 10. $B (+4, 0)$  | 11. $C (+2, +6)$ |
| 12. $D (-3, +6)$ | 13. $E (+5, -3)$ | 14. $F (-2, +7)$ |
| 15. $G (+1, +6)$ | 16. $H (-5, +6)$ | 17. $J (+4, +6)$ |

For 18–23, name the ordered pair that is described.

- |   |   |
|---|---|
| 18. Start at the origin. Move 6 units to the left and 4 units up.<br>_____  | 19. Start at the origin. Move 4 units to the right and 4 units down.<br>_____ |
| 20. Start at the origin. Move 0 units to the right and 2 units up.<br>_____ | 21. Start at the origin. Move 3 units to the left and 0 units down.<br>_____  |
| 22. Start at the origin. Move 1 unit to the left and 5 units down.<br>_____ | 23. Start at the origin. Move 2 units to the right and 3 units up.<br>_____   |

### Mixed Review

- |  |  |                                    |
|--|--|------------------------------------|
| 24. $348 \times 25$<br>_____               | 25. $30.8 - 16.925$<br>_____               | 26. $7.000 \div 8$<br>_____        |
| 27. $1\frac{3}{4} + 2\frac{3}{8}$<br>_____ | 28. $3\frac{1}{6} - 1\frac{2}{3}$<br>_____ | 29. $1.87 + 32.6 + 0.555$<br>_____ |

## Use an Equation to Graph

Use a rule to complete the table. Then write the equation.

1.

Feet, $x$	2	4	6	8
Toes, $y$	10	20	30	

\_\_\_\_\_

2.

Grapes, $x$	10	14	16	18
Oranges, $y$	6	10	12	

\_\_\_\_\_

3.

Bikes, $x$	3	4	5	6
Wheels, $y$	6	8	10	

\_\_\_\_\_

4.

Triangles, $x$	2	3	4	5
Sides, $y$	6	9	12	

\_\_\_\_\_

Use a rule to complete the table, write the ordered pairs, and then make a graph.

5.

$x$	5	4	3	2	1
$y$	3	2	1		

6.

$x$	3	6	9	12	15
$y$	1	2	3		

7.

$x$	-6	-7	-8	-9	-10
$y$	-2	-3	-4		

8.

$x$	-2	-3	-4	-5	-6
$y$	-5	-6	-7		

Use each equation to make a table with at least 4 ordered pairs. Then graph.

9.  $y = x + 5$

10.  $y = 3x + -2$

11.  $y = 2x$

12.  $y = -4 + x$

13.  $y = x - 0$

14.  $y = -5 + x$

15.  $y = 3x$

16.  $y = x - 6$

### Mixed Review

17.  $789,990 - 543,834 =$  \_\_\_\_\_

18.  $20.08 \times 324 =$  \_\_\_\_\_

19. Round to the nearest ten thousand. 45,213,021

\_\_\_\_\_

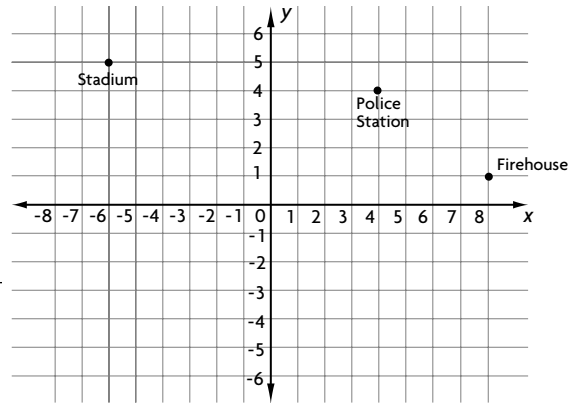
20. Find the range for this set of data.  
12, 42, 24, 53, 12, 17, 34

\_\_\_\_\_

## Problem Solving Skill: Relevant or Irrelevant Information

For 1–2, use the map. Tell the relevant information and solve.

1. The park and the stadium have the same y-coordinate. The x-coordinate of the park is 2 less than the police station's y-coordinate. The firehouse is 4 units right and 3 units down from the police station. Where is the park?



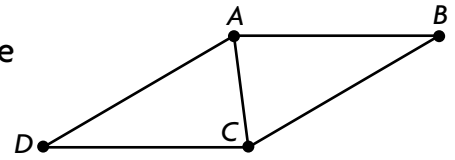
2. The soccer field was built before the stadium. It is south of the park and east of the stadium. If you go 3 units west of the police station, you will find the soccer field. Where is the soccer field?

Lara skated to the playground, which is 3 blocks north of her house. Then she turned west and skated 4 blocks to her friend's house. Before going home, she stopped at the store, which is 3 blocks south of her friend's house. She then returned home. How many blocks did she skate?

3. Which information is relevant to solving the problem?
- A** Lara skated to the playground.  
**B** Her friend lives west of the playground.  
**C** The store is 3 blocks south of Lara's friend's house.  
**D** The playground is north of Lara's house.
4. Which question cannot be answered with the given information?
- F** How far is Lara's house from the store?  
**G** In which direction did Lara travel home from the store?  
**H** Could Lara have taken a shorter route?  
**J** How far is the playground from the store?
5. In the number 268,743, how many times greater than the 3 is the 6?
6. Write the next 4 letters in this sequence: A, B, Z, Y, C, D, . . .

## Lines and Angles

For 1–5, use the figure at the right. Name an example of each term.



1. Angle

\_\_\_\_\_

2. Acute Angle

\_\_\_\_\_

3. Obtuse Angle

\_\_\_\_\_

4. Point

\_\_\_\_\_

5. Line Segment

\_\_\_\_\_

Draw and label a figure for each.

6.  $\overline{AB}$

7. Point C

8.  $\overrightarrow{BG}$

For 9–11, use the figure.

9. Name a line segment parallel to  $\overline{AB}$ .

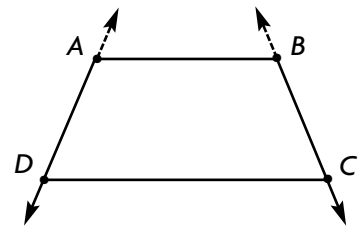
\_\_\_\_\_

10. Name a line segment that intersects  $\overline{DA}$ .

\_\_\_\_\_

11. Name two line segments that are not parallel.

\_\_\_\_\_



### Mixed Review

12. Solve for  $n$ .

$$\frac{600}{n} = 20$$

\_\_\_\_\_

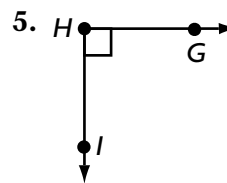
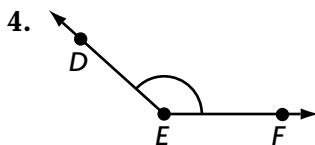
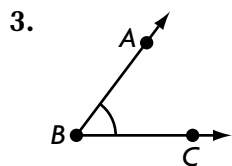
13. What is  $\frac{1}{3}$  of 270?

\_\_\_\_\_

## Measure and Draw Angles

- The unit used to measure an angle is called a \_\_\_\_\_.
- A \_\_\_\_\_ is a tool for measuring the size of the opening of an angle.

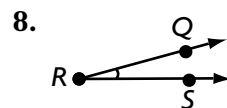
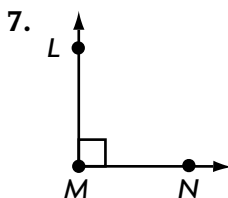
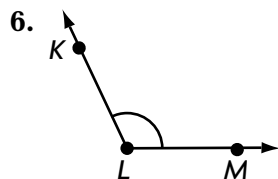
Use a protractor to measure and classify each angle.



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

Solve.

9.  $55 \overline{)555,555}$

10.  $2^8$

11.  $3^5$

12.  $3 \overline{)4,527}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13.  $\begin{array}{r} 325 \\ \times 12 \\ \hline \end{array}$

14.  $\begin{array}{r} 673 \\ \times 25 \\ \hline \end{array}$

15.  $\begin{array}{r} 518 \\ \times 42 \\ \hline \end{array}$

16.  $\begin{array}{r} 236 \\ \times 18 \\ \hline \end{array}$

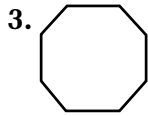
17.  $\begin{array}{r} 639 \\ \times 48 \\ \hline \end{array}$



## Angles and Polygons

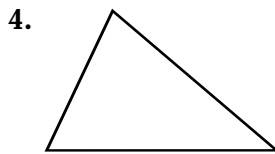
1. A \_\_\_\_\_ is a closed plane figure formed by three or more line segments.
2. If all the sides have equal length and the angles measure the same, the figure is a \_\_\_\_\_.

Name each polygon and tell if it is *regular* or *not regular*.



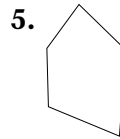
\_\_\_\_\_

\_\_\_\_\_



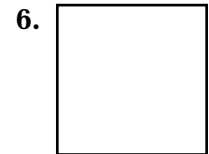
\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_

Use dot paper to draw an example of each.

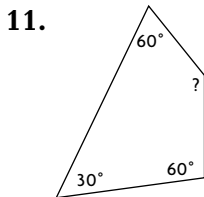
7. regular hexagon

8. regular quadrilateral

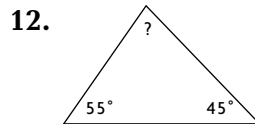
9. octagon that is not regular

10. regular triangle

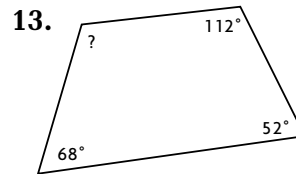
Find the unknown angle measure.



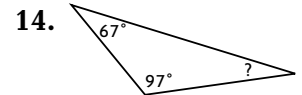
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

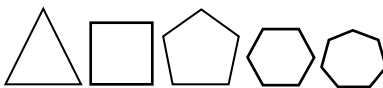


\_\_\_\_\_

Find the pattern. Then write a rule. Use your rule to draw the next figure in the pattern.

15.  $\triangle \triangle\triangle \triangle\triangle \triangle\triangle\triangle \triangle\triangle\triangle$

\_\_\_\_\_

16. 

\_\_\_\_\_

### Mixed Review

17. 
$$\begin{array}{r} 7,777 \\ \times \quad 77 \\ \hline \end{array}$$

\_\_\_\_\_

18. What is the square root of 256?

\_\_\_\_\_

19.  $12 \overline{)82,432}$

\_\_\_\_\_

20. What is  $4^4$ ?

\_\_\_\_\_

# Circles

## Vocabulary

Write the correct letter from Column 2.

Column 1

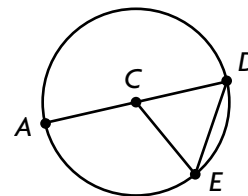
Column 2

- |                   |   |
|-------------------|---|
| 1. chord _____    | a. a tool for constructing circles  |
| 2. diameter _____ | b. a line segment that connects the center with a point on the circle                     |
| 3. circle _____   | c. a line segment that connects any two points on the circle                              |
| 4. radius _____   | d. a closed figure with all points on the figure the same distance from the center point. |
| 5. compass _____  | e. a chord that passes through the center of the circle                                   |

For 6–7, use circle C.

6. If  $\overline{AC}$  is 6 in. long, how long is  $\overline{CE}$ ?

7. If  $\overline{AC}$  is 6 in. long, how long is  $\overline{AD}$ ?



\_\_\_\_\_

\_\_\_\_\_

Use a compass to draw each circle. Draw the radius and the diameter, and label the measurements.

8. radius = \_\_\_\_\_  
diameter = 5 cm

9. radius = 4 cm  
diameter = \_\_\_\_\_

10. radius = \_\_\_\_\_  
diameter = 6 cm

## Mixed Review

11. 
$$\begin{array}{r} 436 \\ \times 85 \\ \hline \end{array}$$

12.  $26 \overline{)2,704}$

13.  $5^2$

14.  $2^5$

\_\_\_\_\_

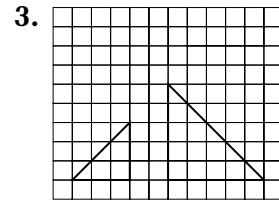
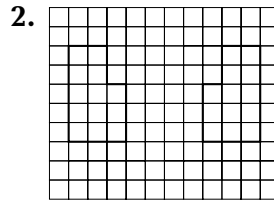
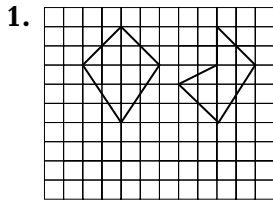
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Congruent and Similar Figures

Write *similar*, *congruent*, or *neither* to describe each pair.

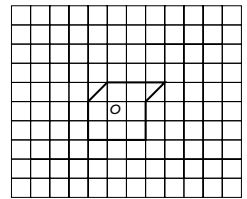
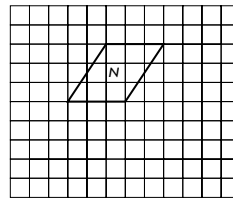
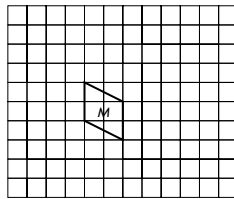
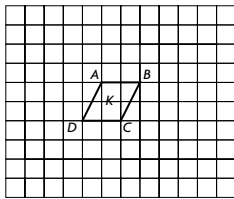


\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

For 4–6, use the figures below.



4. Write the letter of the figure that is neither congruent nor similar to Figure K.

\_\_\_\_\_

5. Write the letter of the figure that is similar but not congruent to Figure K.

\_\_\_\_\_

6. Write the letter of the figure that is congruent to Figure K.

\_\_\_\_\_

### Mixed Review

7. 
$$\begin{array}{r} 6.97 \\ +3.1 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 8.43 \\ -7.96 \\ \hline \end{array}$$

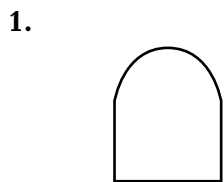
9. 
$$\begin{array}{r} 5.02 \\ +6.09 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 4.85 \\ -1.94 \\ \hline \end{array}$$

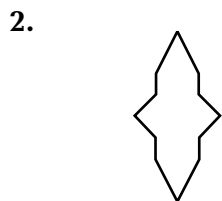
11. 
$$\begin{array}{r} 5.93 \\ -3.59 \\ \hline \end{array}$$

## Symmetric Figures

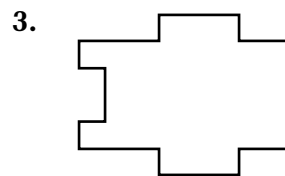
Draw the lines of symmetry for each figure. Tell whether each figure has rotational symmetry. Write *yes* or *no*.



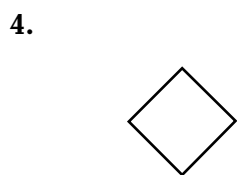
\_\_\_\_\_



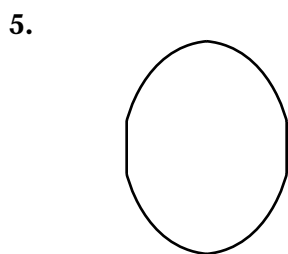
\_\_\_\_\_



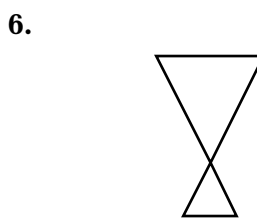
\_\_\_\_\_



\_\_\_\_\_

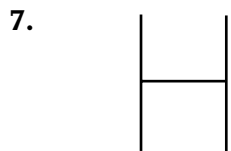


\_\_\_\_\_

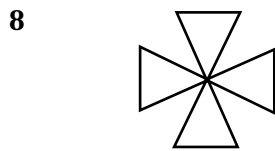


\_\_\_\_\_

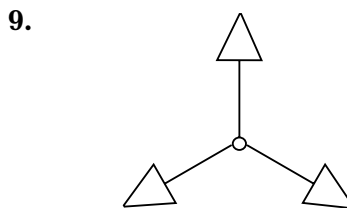
Each figure has rotational symmetry. Tell the fraction and angle measure of each turn.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

### Mixed Review

10. Find the next number in the sequence: 1, 3, 6, 10, 15, . . .

\_\_\_\_\_

11. Find the change from a \$20 bill for purchases totaling \$17.21.

\_\_\_\_\_

12. What is  $\frac{2}{3}$  of 90?

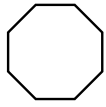
\_\_\_\_\_

13. Dave has saved \$65.50 for a radio that costs \$74.98 including tax. How much more does he need to save?

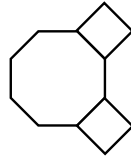
\_\_\_\_\_

### Problem Solving Strategy: Find a Pattern

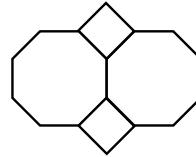
Find a pattern to solve. Describe the pattern.



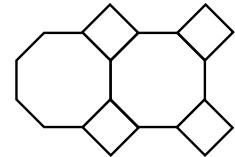
**Step 1**



**Step 2**



**Step 3**



**Step 4**

1. What shape or shapes would be added at Step 6?

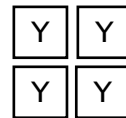
\_\_\_\_\_

2. What shape or shapes would be added at Step 9?

\_\_\_\_\_



1 red, 2 yellow, 4 blue, 2 red,



4 yellow, \_\_\_\_\_, \_\_\_\_\_  
(Step 6) (Step 7)

3. What color will the blocks in Step 6 be?

\_\_\_\_\_

4. How many blocks will be in Step 6?

\_\_\_\_\_

5. What color blocks will be added at Step 7?

\_\_\_\_\_

6. How many blocks will be added at Step 9?

\_\_\_\_\_

7. What is the next number in this pattern? 3, 4, 7, 8, 11, . . . ?

\_\_\_\_\_

8. What is shape of the 16th bead?

\_\_\_\_\_

### Mixed Review

Solve.

9. 
$$\begin{array}{r} 8,535 \\ \times \quad 9 \\ \hline \end{array}$$

\_\_\_\_\_

10. A triangle has two angles measuring  $45^\circ$  and  $61^\circ$ . What is the third angle?

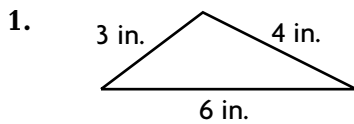
\_\_\_\_\_

11.  $11 \overline{)99,341}$

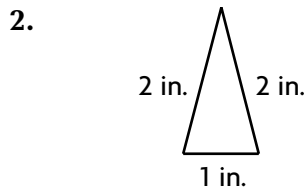
\_\_\_\_\_

# Triangles

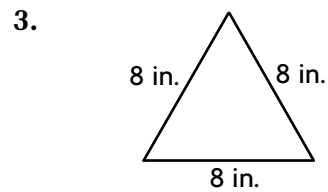
Classify each triangle. Write *isosceles*, *scalene*, or *equilateral*.



\_\_\_\_\_

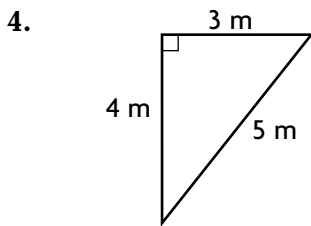


\_\_\_\_\_

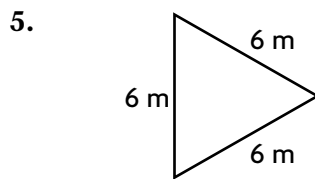


\_\_\_\_\_

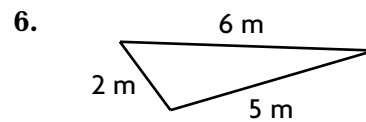
Classify each triangle. Write *right*, *acute*, or *obtuse*.



\_\_\_\_\_

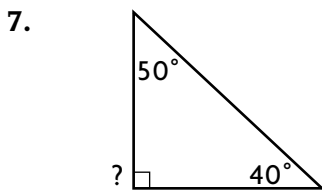


\_\_\_\_\_

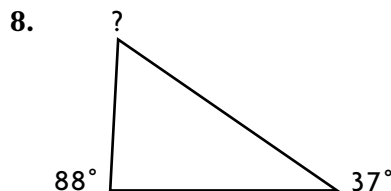


\_\_\_\_\_

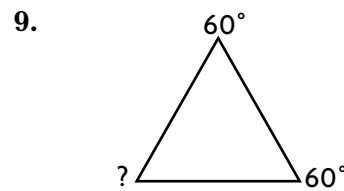
Find the unknown angle measure.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

Use a protractor and ruler to draw triangle *ABC* according to the given measurements. Classify the triangle by its sides and by its angles. Then find the measure of the third angle.

10.  $\angle A = 65^\circ$ ,  $\angle C = 65^\circ$ ,  $\overline{AC} = 4$  in.

\_\_\_\_\_

11.  $\angle C = 50^\circ$ ,  $\angle B = 20^\circ$ ,  $\overline{CB} = 2.5$  in.

\_\_\_\_\_

## Mixed Review

Add or subtract. Write the answer in simplest form.

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

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

14.  $1\frac{1}{2} + \frac{3}{8}$

15.  $3\frac{1}{6} - \frac{5}{6}$

16.  $2\frac{1}{8} + \frac{5}{6}$

17.  $\frac{3}{10} + \frac{5}{8}$



# Quadrilaterals

## Vocabulary

Write the correct letter from Column 2.

### Column 1

- \_\_\_\_\_ 1. has 4 congruent sides and 2 pairs of congruent angles
- \_\_\_\_\_ 2. has 2 pairs of congruent and parallel sides
- \_\_\_\_\_ 3. has 4 sides of any length and 4 angles of any size
- \_\_\_\_\_ 4. has only 1 pair of parallel sides

### Column 2

- a. quadrilateral
- b. trapezoid
- c. parallelogram
- d. rhombus

Draw and classify each quadrilateral described.

5. adjacent sides not equal; 2 pairs of congruent sides; 4 right angles

\_\_\_\_\_

6. opposite sides not parallel; angles not equal

\_\_\_\_\_

7. a parallelogram with congruent sides

\_\_\_\_\_

8. equal angles; 4 congruent sides

\_\_\_\_\_

9. 2 pairs of parallel sides; 2 pairs of equal angles

\_\_\_\_\_

10. angles not equal; only one pair of parallel sides

\_\_\_\_\_

## Mixed Review

11.  $17^3$

\_\_\_\_\_

12.  $0.25 \overline{)16.84}$

\_\_\_\_\_

13. 
$$\begin{array}{r} 336.98 \\ \times 1.8 \\ \hline \end{array}$$

\_\_\_\_\_

14.  $\frac{6}{7} + \frac{7}{5}$

\_\_\_\_\_

# Algebra: Transformations

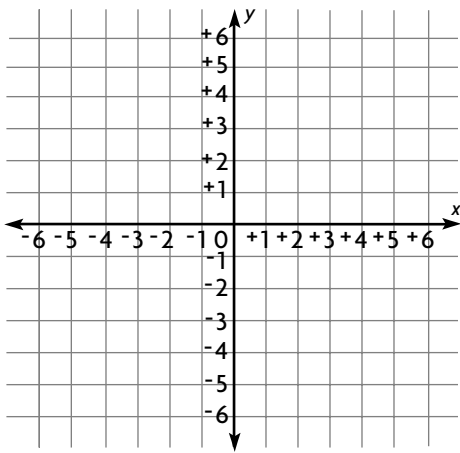
## Vocabulary

Complete.

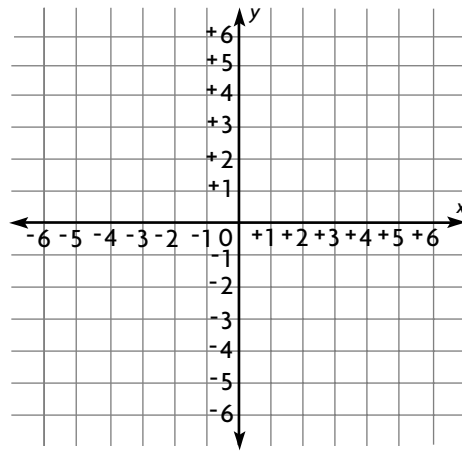
- When you move a figure to show a translation, reflection, or rotation, it is called a \_\_\_\_\_.

Graph the triangle with vertices  $(+2, +4)$ ,  $(+2, +6)$ , and  $(+6, +4)$ . Then transform the triangle to the new given vertices. Write *translation*, *reflection*, or *rotation* to describe the move.

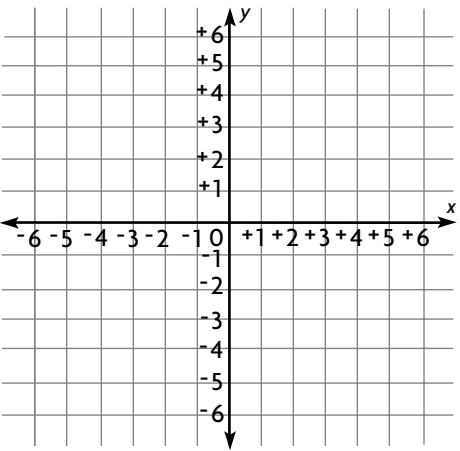
- $(-2, +4)$ ,  $(-2, +6)$ ,  $(-6, +4)$



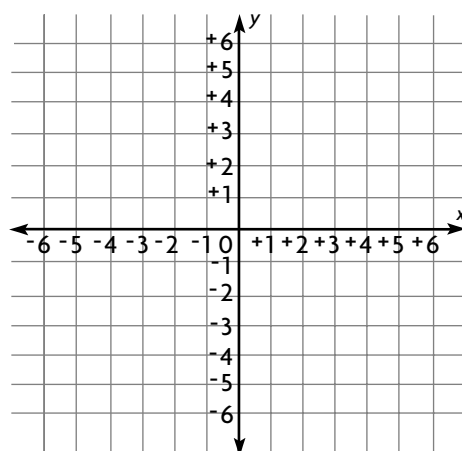
- $(+2, +4)$ ,  $(+4, +4)$ ,  $(+2, 0)$



- $(-6, -4)$ ,  $(-6, -2)$ ,  $(-2, -4)$



- $(+2, -4)$ ,  $(+2, -6)$ ,  $(+6, -4)$



## Mixed Review

6. 
$$\begin{array}{r} 5.5 \\ \times 6.5 \\ \hline \end{array}$$

7. 
$$\frac{3}{4} - \frac{15}{20}$$

8. 
$$0.5 \overline{)0.985}$$

9. 
$$\begin{array}{r} \$18,350.66 \\ - \quad \quad \quad 681.08 \\ \hline \end{array}$$





## Solid Figures

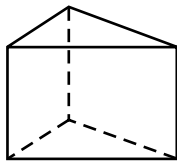
### Vocabulary

Complete.

1. A \_\_\_\_\_ is a polyhedron that has two congruent faces called \_\_\_\_\_.
2. A \_\_\_\_\_ is a solid figure with one \_\_\_\_\_ that is a polygon and three or more faces that are triangles with a common vertex.
3. A \_\_\_\_\_ is a solid figure with faces that are polygons.

Classify the solid figure. Then, write the number of faces, vertices, and edges.

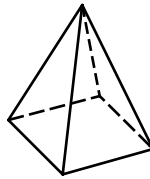
4.



\_\_\_\_\_

\_\_\_\_\_

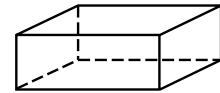
5.



\_\_\_\_\_

\_\_\_\_\_

6.



\_\_\_\_\_

\_\_\_\_\_

Draw and classify each figure described.

7. I have 1 flat circular base. I have 1 curved surface.

\_\_\_\_\_

8. I have a base with 8 equal sides. My faces are 8 triangles.

\_\_\_\_\_

### Mixed Review

9. Write 0.125 as a fraction in simplest form.

\_\_\_\_\_

10.  $0.393$   
 $\times 3.93$

\_\_\_\_\_

11. Write  $\frac{80}{100}$  in simplest form.

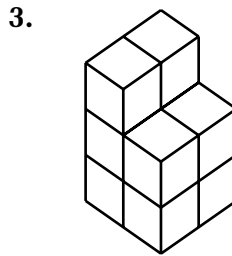
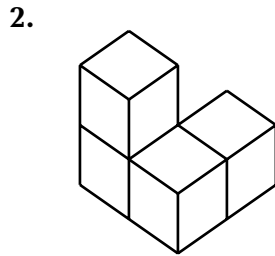
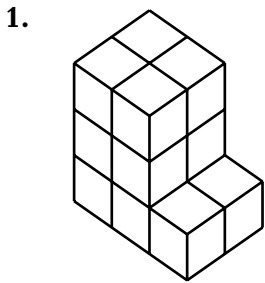
\_\_\_\_\_

12.  $\$290,460.81$   
 $+ 6,387.24$

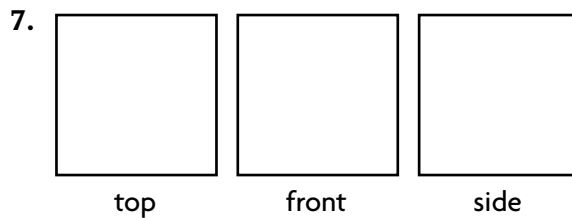
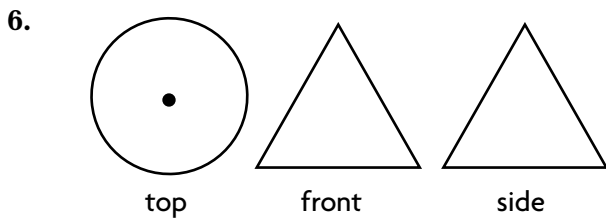
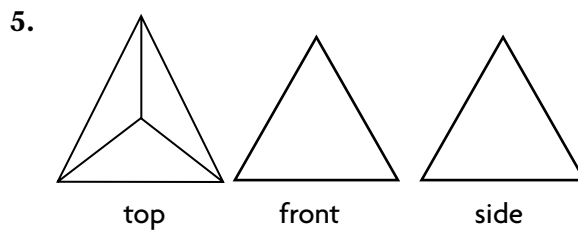
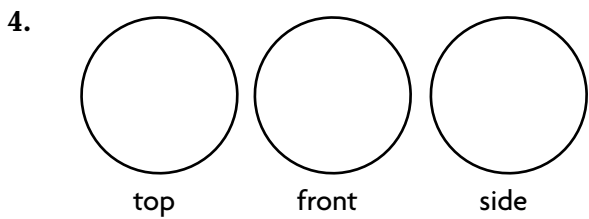
\_\_\_\_\_

### Draw Solid Figures from Different Views

Use grid paper to draw each figure from the top, the side, and the front.



Identify the solid figure that has the given views.



### Mixed Review

8. 
$$\begin{array}{r} 9.78 \\ \times 21 \\ \hline \end{array}$$

\_\_\_\_\_

9. Write three fractions equivalent to  $\frac{3}{8}$ .

\_\_\_\_\_

10.  $6^5$

\_\_\_\_\_

11. 
$$\begin{array}{r} 316 \\ - 279 \\ \hline \end{array}$$

\_\_\_\_\_

12. Solve for x.  
 $4 + x = 10$

\_\_\_\_\_

13.  $7^3$

\_\_\_\_\_

## Problem Solving Skill: Make Generalizations

Make generalizations to solve.

- The Towers Dormitories at the University of Pittsburgh are three congruent prisms. If a side of Tower A is 229.5 feet high, how high is a side of Tower C?  
\_\_\_\_\_
- The World Trade Center buildings in New York City are two rectangular prisms. They both have 110 stories. One tower is 4 feet shorter than the other. Are the heights of their stories the same?  
\_\_\_\_\_
- A plane figure has 6 congruent sides. The perimeter of the figure is 96 meters. What is the length of each side?  
\_\_\_\_\_
- The distance between Youngstown and Ashville is the same as the distance between Canton and Youngstown. If it takes 2 hours to drive from Youngstown to Ashville, how long should it take to drive from Youngstown to Canton?  
\_\_\_\_\_
- Betty is cutting a rectangular cake. It measures 12 inches long by 6 inches wide. If each piece is 3 inches square, how many pieces can she cut?  
\_\_\_\_\_
- Bart and Brett are identical twins. Brendan and Britt are also identical twins. Can you find the ages of Bart and Brett? Explain.  
\_\_\_\_\_

### Mixed Review

7.  $90 \overline{)363,636}$   
\_\_\_\_\_

8.  $\frac{31}{32} - \frac{1}{4}$   
\_\_\_\_\_

9. 
$$\begin{array}{r} 363,636 \\ \times \quad 96 \\ \hline \end{array}$$
  
\_\_\_\_\_

10. What is  $9^4$ ?  
\_\_\_\_\_

# Customary Length

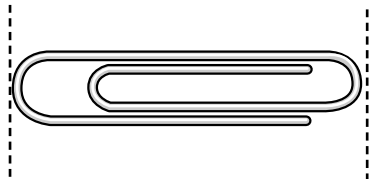
## Vocabulary

1. The smaller the unit, the more \_\_\_\_\_ the measurement will be.

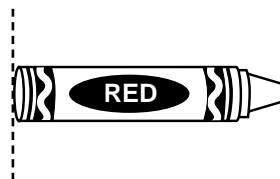
Estimate the length in inches. Then measure to the nearest

$\frac{1}{16}$  inch.

2.



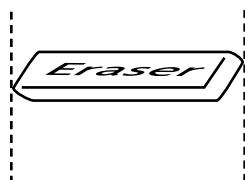
3.



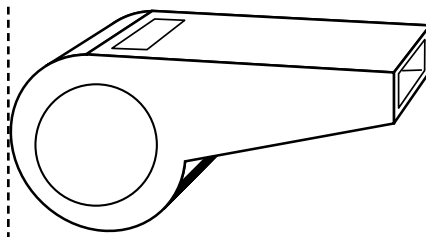
Estimate the length in inches. Then measure to the nearest

$\frac{1}{8}$  inch.

4.



5.



Draw a line segment to the given length.

6.  $1\frac{3}{4}$  inches

7.  $2\frac{3}{16}$  inches

8.  $3\frac{5}{16}$  inches

## Mixed Review

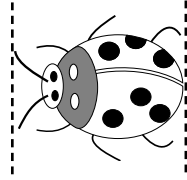
9. Karina's art teacher gave her an  $8\frac{1}{2}$ -inch by 11-inch piece of paper. He told her to leave a  $\frac{3}{4}$ -inch margin on all 4 sides. What are the dimensions of the remaining area?

10. Elise measures her hair ribbon. It is  $9\frac{2}{3}$  inches long. Mindy's hair ribbon is  $9\frac{5}{8}$  inches long. Who has the longer hair ribbon? How much longer?

## Metric Length

Estimate the length in centimeters. Measure to the nearest centimeter and then to the nearest millimeter.

1.



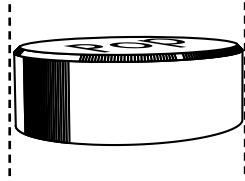
\_\_\_\_\_

2.



\_\_\_\_\_

3.



\_\_\_\_\_

4.



\_\_\_\_\_

Draw a line segment to the given length.

5. 4 cm 3 mm

6. 6 cm 1 mm

7. 1.4 cm

8. 8 mm

## Mixed Review

9. Write  $<$ ,  $>$ , or  $=$  for  $\bigcirc$ .3.78  $\bigcirc$   $3\frac{3}{4}$ 10. What kind of triangle has a  $90^\circ$  angle?

\_\_\_\_\_

11. Write  $\frac{6}{9}$  in simplest form.

\_\_\_\_\_

12. Write  $6\frac{1}{8}$  as a decimal.

\_\_\_\_\_

13. Would you rather buy 6 yards or 17 feet of fabric, each selling at the same price?

\_\_\_\_\_

14. What is the least common multiple of 8 and 14?

\_\_\_\_\_

## Change Linear Units

Change the unit.

1. 65 cm = \_\_\_\_\_ mm      2. 400 cm = \_\_\_\_\_ m      3. 60 in. = \_\_\_\_\_ ft  
 4. 3 yd = \_\_\_\_\_ in.      5. 36 ft = \_\_\_\_\_ yd      6. 1,760 yd = \_\_\_\_\_ mi

Complete.

7. 7 km 8 m = 6 km  m    8. 3 mi 27 ft = 2 mi  ft    9. 10 ft =  yd 1 ft
- \_\_\_\_\_

Find the sum or difference.

10. 
$$\begin{array}{r} 6 \text{ ft } 5 \text{ in.} \\ + 3 \text{ ft } 9 \text{ in.} \\ \hline \end{array}$$
      11. 
$$\begin{array}{r} 9 \text{ yd } 7 \text{ ft} \\ - 6 \text{ yd } 8 \text{ ft} \\ \hline \end{array}$$
      12. 
$$\begin{array}{r} 9 \text{ m } 20 \text{ cm} \\ - 7 \text{ m } 30 \text{ cm} \\ \hline \end{array}$$
      13. 
$$\begin{array}{r} 15 \text{ m } 4 \text{ cm} \\ + 6 \text{ m } 2 \text{ cm} \\ \hline \end{array}$$

## Mixed Review

Find the product.

14. 
$$\begin{array}{r} 2,345 \\ \times 16 \\ \hline \end{array}$$
      15. 
$$\begin{array}{r} 1,789 \\ \times 25 \\ \hline \end{array}$$
      16. 
$$\begin{array}{r} 3,060 \\ \times 32 \\ \hline \end{array}$$

Order from *least to greatest*.

17.  $2\frac{2}{11}$ ,  $1\frac{5}{8}$ ,  $2\frac{1}{9}$ ,  $1\frac{3}{7}$       18.  $\frac{26}{3}$ ,  $\frac{22}{4}$ ,  $\frac{16}{5}$ ,  $\frac{21}{3}$ ,  $\frac{19}{2}$
- \_\_\_\_\_

19. Karen is counting the change in her drawer. When she gets 6 more nickels, she will have \$5.00 in nickels. How many nickels does she have now?
- \_\_\_\_\_
20. The Ryan family traveled 64 miles on Friday and 60.2 miles on Saturday. The Jones family traveled 59.3 miles on Friday and 63.4 miles on Saturday. Which family traveled more miles? How many more?
- \_\_\_\_\_

**Customary Capacity and Weight**

Change the unit.

1. 16 pt =  gal      2. 10 c =  pt      3. 4 qt =  c      4. 1 gal =  c  
 \_\_\_\_\_
5. 32 fl oz =  pt      6. 3 T =  lb      7. 16 qt =  gal      8. 8 c =  fl oz  
 \_\_\_\_\_

Choose the best estimate.

9. A bucket of ice cream holds \_\_\_\_\_.  
 a. 1 gallon  
 b. 1 cup  
 c. 1 pint
10. A coffee cup holds \_\_\_\_\_.  
 a. 1 gallon  
 b. 3 pints  
 c. 1 cup
11. A truck weighs \_\_\_\_\_.  
 a. 300 pounds  
 b. 5 tons  
 c. 20 ounces
12. A cat weighs \_\_\_\_\_.  
 a. 300 pounds  
 b. 16 ounces  
 c. 15 pounds

**Mixed Review**

Find the sum, difference, or product.

13.  $2\frac{3}{4} + 1\frac{1}{8}$       14.  $3 \times \frac{2}{5}$       15.  $\begin{array}{r} 24.06 \\ - 15.59 \\ \hline \end{array}$   
 \_\_\_\_\_

16. What angles are greater than  $90^\circ$  but less than  $180^\circ$ ?  
 \_\_\_\_\_

17. What are the prime numbers between 5 and 13?  
 \_\_\_\_\_

18. If you started a bike race at 11:30 A.M. and you finished 2 hours later, what time would it be?  
 \_\_\_\_\_

19. Write fourteen thousand and six tenths in standard form.  
 \_\_\_\_\_

## Metric Capacity and Mass

Change the unit.

1.  $1.5 \text{ L} = \square$  metric cups    2.  $2,000 \text{ L} = \square$  kL    3.  $5,000 \text{ mg} = \square$  g

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Choose the best estimate.

4.



mass of an apple pie is \_\_\_\_\_

- a. 1 mg
- b. 1 g
- c. 1 kg

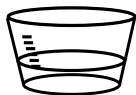
5.



mass of the puppy is \_\_\_\_\_

- a. 2 kg
- b. 2 g
- c. 2 mg

6.



the cup holds \_\_\_\_\_

- a. 3 L
- b. 3 mL
- c. 3 kL

7.



mass of a paper clip is \_\_\_\_\_

- a. 1 mg
- b. 1 kg
- c. 1 g

### Mixed Review

8.  $600 \div 0.03$

\_\_\_\_\_

9.  $16.48 + 3.2 = n$

\_\_\_\_\_

10. Write 16,345,107 in word form.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12. What is the sum of the angles in a triangle?

\_\_\_\_\_

11. Write 21.45 as a fraction.

\_\_\_\_\_

13. In which place would you write the first digit of the quotient for  $2.682 \div 4$ ?

\_\_\_\_\_



## Time

Write the time for each.

1. Start: 9:00 A.M.

Elapsed: \_\_\_\_\_

End: 1:50 P.M.

3. Start: Dec 1, 10:15 P.M.

Elapsed: 4 hr 10 min

End: \_\_\_\_\_

5. Start: 12:15 P.M.

Elapsed: \_\_\_\_\_

End: 8:05 P.M.

2. Start: 7:27 A.M.

Elapsed: 4 hr 24 min

End: \_\_\_\_\_

4. Start: \_\_\_\_\_

Elapsed: 16 hr 35 min

End: March 18, 3:25 A.M.

6. Start: \_\_\_\_\_

Elapsed: 6 hr 15 min

End: 7:25 P.M.

Add or subtract.

$$\begin{array}{r} 7. \quad 3 \text{ hr } 25 \text{ min} \\ + 6 \text{ hr } 50 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 4 \text{ hr } 10 \text{ min} \\ - 1 \text{ hr } 30 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 3 \text{ hr } 1 \text{ min} \\ + 5 \text{ hr } 19 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \text{ hr } 5 \text{ min} \\ - 2 \text{ hr } 50 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 8 \text{ hr } 5 \text{ min} \\ + 2 \text{ hr } 25 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 5 \text{ hr } 20 \text{ min} \\ - 2 \text{ hr } 45 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 6 \text{ hr } 3 \text{ min} \\ + 6 \text{ hr } 34 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 7 \text{ hr } 57 \text{ min} \\ - 6 \text{ hr } 38 \text{ min} \\ \hline \end{array}$$

## Mixed Review

15. Bob bought 50 yards of velvet and 40 yards of denim to recover the chairs. The velvet cost \$45.99 per yard and the denim cost \$6.50 per yard. What was his total bill?

\_\_\_\_\_

17.  $n + 3 = 4 \times 7$

\_\_\_\_\_

16. Julie bought 16 pounds of apples at \$1.69 per pound. How much did Julie pay?

\_\_\_\_\_

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

\_\_\_\_\_

## Problem Solving Strategy: Make a Table

Make a table to solve.

1. The pool at the community center is open daily. The swim team occupies the pool from 6:00 A.M. until 8:30 A.M. Then there is a one-hour open swim followed by four different 45-minute swim classes. At what time is the pool available?  
\_\_\_\_\_
2. Tomás starts his activities at camp at 9:30 A.M. He has swimming for  $1\frac{1}{2}$  hours, archery for 1 hour, and lunch for 30 minutes. Then he has crafts for  $2\frac{1}{2}$  hours. At what time does Tomás finish crafts?  
\_\_\_\_\_
3. The Youth Symphony begins auditions at 10:00 A.M. Each student is given 10 minutes to perform. If Claudia is the 12th in line, at what time is her audition?  
\_\_\_\_\_
4. Kelly reads to children at the library. There are 3 sessions. Each lasts 45 minutes, with 30 minutes between sessions. If Kelly starts reading at 10:00 A.M., at what time does she finish?  
\_\_\_\_\_

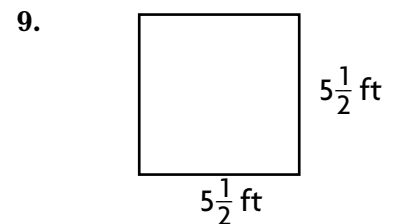
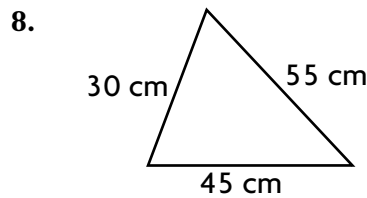
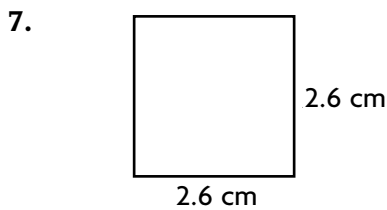
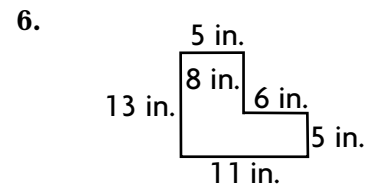
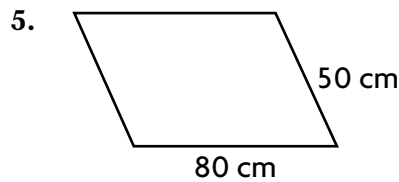
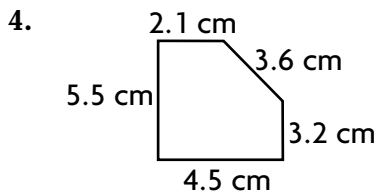
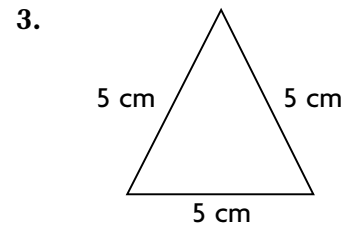
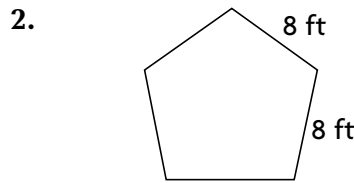
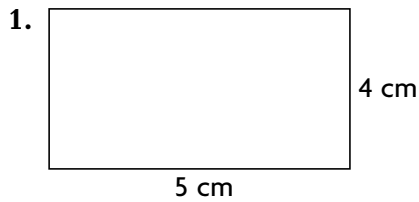
## Mixed Strategy Practice

Solve.

5. Yoma bought a 32-ounce box of raisins for \$3.28. Liz paid \$1.79 for a pound of raisins. Who got the better price? Explain.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Gil's mom has the car's oil changed every 3,000 miles. If she drives 18,000 miles per year, how many times is the oil changed each year?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. What is the next number in the pattern? 24, 19, 14, 9, ■  
\_\_\_\_\_
8. The museum sells 3 maps for \$12.99. How much is each map?  
\_\_\_\_\_

**Perimeter**

Find the perimeter of each polygon.

**Mixed Review**

10. Name the addition property used in this equation.  $(9 + 1) + 3 = 9 + (1 + 3)$

\_\_\_\_\_

11. What number's value is 100,000 less than 1,547,298?

\_\_\_\_\_

12. Write forty-five ten-thousandths in standard form.

\_\_\_\_\_

13.  $8.9 + 0.92 + 0.095 + 8.4 + 0.9$

\_\_\_\_\_

14.  $6 \times \$1.65$

\_\_\_\_\_

15.  $16 \overline{)450}$

\_\_\_\_\_

**Algebra: Circumference**

For 1–6 complete the table.

	$C$	$d$	$C \div d$
1.	9.42 cm	3 cm	_____
2.	5 in.	_____	3.14
3.	4.5 ft	_____	3.14
4.	_____	7 mi	3.14
5.	12 yd	_____	3.14
6.	_____	8.5 cm	3.14

Find the circumference of a circle that has

7. a diameter of 34 in.

\_\_\_\_\_

8. a radius of 6 ft.

\_\_\_\_\_

9. a radius of 2 m.

\_\_\_\_\_

10. a diameter of 100 yd.

\_\_\_\_\_

**Mixed Review**

11. What is the perimeter of a square that measures 4.5 ft on one side?

\_\_\_\_\_

12. Write one hundred thirty-five ten-thousandths in standard form.

\_\_\_\_\_

13. Find the average of 1.5, 2, 2.5, and 1.

\_\_\_\_\_

14. Each player on the basketball team is required to have an average of 80 or better. 76, 85, 70, 90, 71, and 82 are the math scores of one basketball player. Find his average. Will he be able to play on the team?

\_\_\_\_\_

15.  $12 \times n = 600$ 

\_\_\_\_\_

16.  $23 \overline{)658}$ 

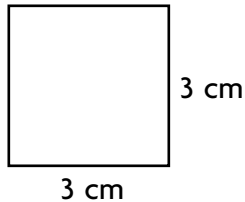
\_\_\_\_\_



## Algebra: Area of Squares and Rectangles

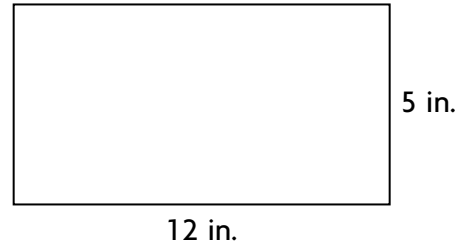
Find the area of each figure.

1.



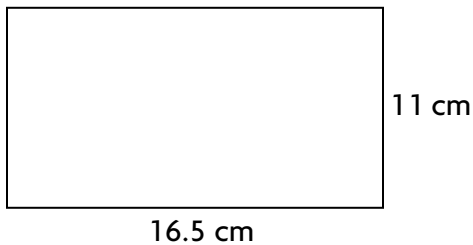
\_\_\_\_\_

2.



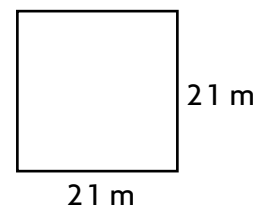
\_\_\_\_\_

3.



\_\_\_\_\_

4.



\_\_\_\_\_

Find each missing measurement.

5.  $s = 3.2$  yd

$A = \blacksquare$

\_\_\_\_\_

6.  $s = 5\frac{1}{2}$  in.

$A = \blacksquare$

\_\_\_\_\_

7.  $s = 60$  cm

$A = \blacksquare$

\_\_\_\_\_

8.  $l = 9$  m

$w = 12$  m

$A = \blacksquare$

\_\_\_\_\_

9.  $l = \blacksquare$

$w = 3.1$  mi

$A = 31$  mi<sup>2</sup>

\_\_\_\_\_

10.  $l = 4.5$  ft

$w = \blacksquare$

$A = 72$  ft<sup>2</sup>

\_\_\_\_\_

### Mixed Review

11.  $22 \overline{)456}$

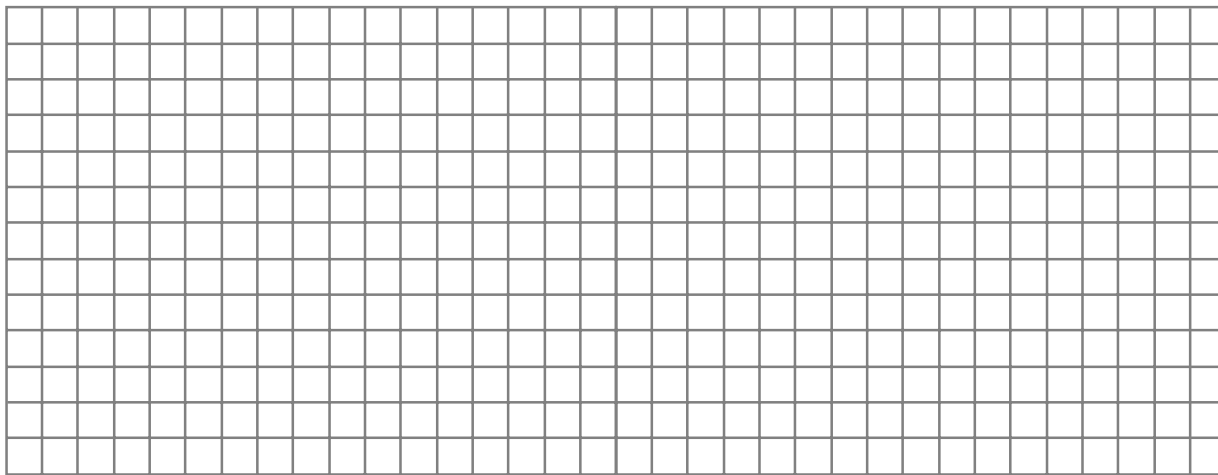
\_\_\_\_\_

12. Name the factors of 11. Is it a prime or composite number?

\_\_\_\_\_

## Relate Perimeter and Area

Use the grid below to draw rectangles for the given perimeter.  
Name the length and width of the rectangle with the greatest area.  
(Use whole numbers.)



1. 50 cm

2. 34 cm

3. 12 cm

\_\_\_\_\_

Find the dimensions of the rectangle with the least perimeter for the given area. (Use whole numbers.)

4.  $30 \text{ cm}^2$ 5.  $12 \text{ cm}^2$ 6.  $21 \text{ cm}^2$ 

\_\_\_\_\_

7.  $50 \text{ cm}^2$ 8.  $4 \text{ cm}^2$ 9.  $48 \text{ cm}^2$ 

\_\_\_\_\_

## Mixed Review

10. What is the least common multiple of 15 and 10?

\_\_\_\_\_

11. Change  $\frac{1}{20}$  to a decimal.

\_\_\_\_\_

12.  $\frac{1}{3} + \frac{2}{5}$

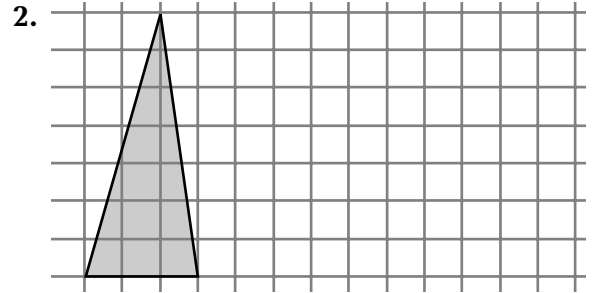
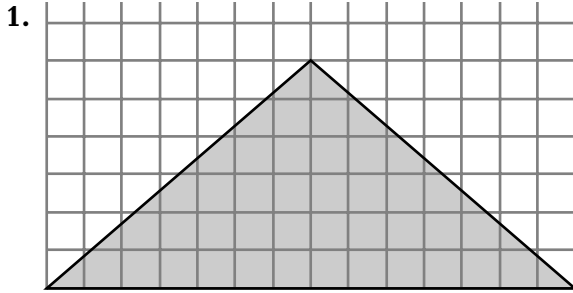
\_\_\_\_\_

13. Change 42 inches to feet.

\_\_\_\_\_

## Algebra: Area of Triangles

Find the area of each triangle.



Find the area of each triangle.

3. base ( $b$ ) = 4 cm

height ( $h$ ) = 5 cm

\_\_\_\_\_

4. base ( $b$ ) = 12 yd

height ( $h$ ) = 12 yd

\_\_\_\_\_

5. base ( $b$ ) = 3.5 mi

height ( $h$ ) = 10 mi

\_\_\_\_\_

6. base ( $b$ ) = 10 in.

height ( $h$ ) = 4 in.

\_\_\_\_\_

7. base ( $b$ ) = 7 ft

height ( $h$ ) = 6 ft

\_\_\_\_\_

8. base ( $b$ ) = 21 cm

height ( $h$ ) = 12 cm

\_\_\_\_\_

Find the missing measurement for each triangle.

9. base ( $b$ ) = ■

height ( $h$ ) = 50 cm

Area ( $A$ ) =  $800 \text{ cm}^2$

\_\_\_\_\_

10. base ( $b$ ) = 32 ft

height ( $h$ ) = ■

Area ( $A$ ) =  $160 \text{ ft}^2$

\_\_\_\_\_

11. base ( $b$ ) = 4 cm

height ( $h$ ) = ■

Area ( $A$ ) =  $18 \text{ cm}^2$

\_\_\_\_\_

### Mixed Review

12. What is the circumference of a circle that has a diameter of 8 m?

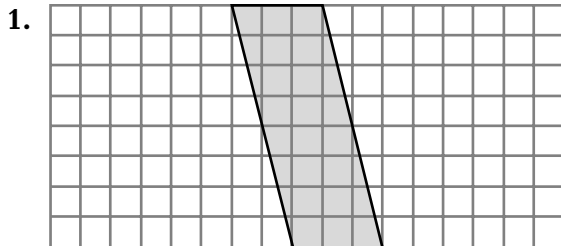
\_\_\_\_\_

13. Is 42 a prime or composite number? What are its factors?

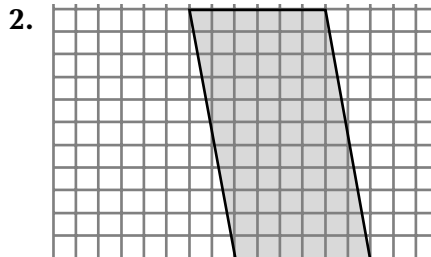
\_\_\_\_\_

**Algebra: Area of Parallelograms**

Write the base and height of each figure.



\_\_\_\_\_



\_\_\_\_\_

Find the area of each parallelogram.

3. base ( $b$ ) = 3 in.

height ( $h$ ) = 6 in.

\_\_\_\_\_

4. base ( $b$ ) = 7.5 cm

height ( $h$ ) = 4 cm

\_\_\_\_\_

Find the missing measurement for the parallelogram.

5. base ( $b$ ) = 22.5 cm

height ( $h$ ) = 5 cm

Area ( $A$ ) = ■

\_\_\_\_\_

6. base ( $b$ ) = ■

height ( $h$ ) = 12 yd

Area ( $A$ ) = 98.4 yd<sup>2</sup>

\_\_\_\_\_

7. base ( $b$ ) = 3.5 mi

height ( $h$ ) = ■

Area ( $A$ ) = 7.7 mi<sup>2</sup>

\_\_\_\_\_

**Mixed Review**

8. What is the area of a triangle with a base of 5 inches and a height of 6.5 inches?

\_\_\_\_\_

9. What is the median of this set of data? 45, 60, 34, 56, 20, 90, 34

\_\_\_\_\_

10. Write a number between 1.03 and 1.10.

\_\_\_\_\_

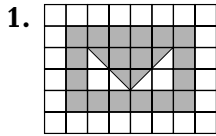
11. What number's value is 10,000 greater than 298,469?

\_\_\_\_\_

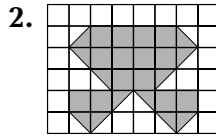


## Area of Irregular Figures

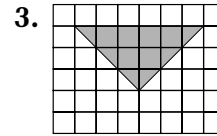
Find the area. Each square is  $1 \text{ cm}^2$ .



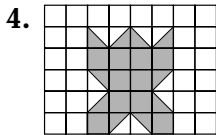
\_\_\_\_\_



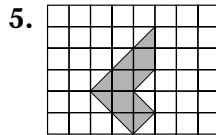
\_\_\_\_\_



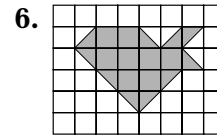
\_\_\_\_\_



\_\_\_\_\_

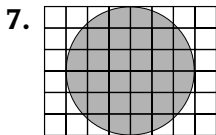


\_\_\_\_\_

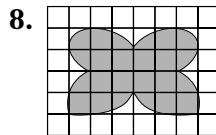


\_\_\_\_\_

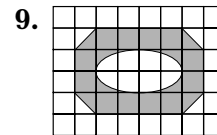
Estimate the area. Each square is  $1 \text{ cm}^2$ .



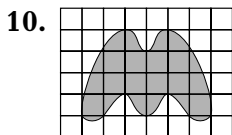
\_\_\_\_\_



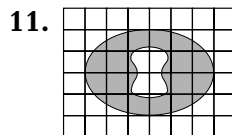
\_\_\_\_\_



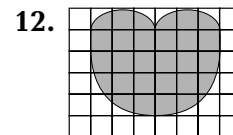
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

### Mixed Review

Find the quotient. Check by multiplying.

13.  $3 \overline{)1.44}$

14.  $8 \overline{)14.32}$

15.  $4 \overline{)0.56}$

Find the sum or difference. Write the answer in simplest form.

16.  $\frac{5}{12} + \frac{1}{4}$

17.  $\frac{6}{9} + \frac{2}{3}$

18.  $\frac{2}{5} - \frac{3}{10}$

19.  $\frac{7}{8} - \frac{3}{16}$

\_\_\_\_\_

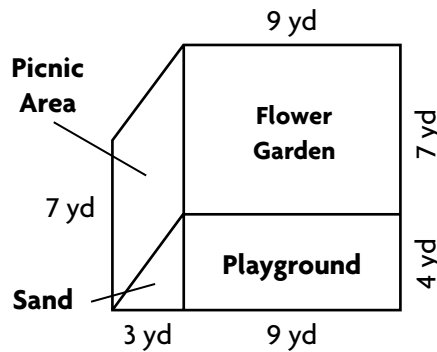
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Problem Solving Strategy: Solve a Simpler Problem

Solve a simpler problem to solve.



1. What is the area of the smallest section of the park?  
\_\_\_\_\_
2. What is the area of the largest section of the park?  
\_\_\_\_\_
3. How many square yards is the park?  
\_\_\_\_\_
4. If a 2 yd by 6 yd rectangular pond were built next to the picnic section, what would the new area of the park be?  
\_\_\_\_\_

## Mixed Review

5. Each bottle of fertilizer covers  $25 \text{ ft}^2$ . How many bottles does the gardener need to fertilize the playground?  
\_\_\_\_\_
6. It takes the gardener 5 minutes to mow  $50 \text{ ft}^2$ . How long will it take him to mow the playground?  
\_\_\_\_\_
7. The sun's surface is close to  $10,000^\circ\text{F}$ . Its inner core may reach temperatures near 35 million degrees. The diameter of the sun is 864,000 mi. Tell whether too much or too little information was given to find the circumference of the sun.  
\_\_\_\_\_
8. Nine planets revolve around the sun along oval-shaped paths. The Earth takes one year or 365 days to make one revolution. Tell whether too much or too little information was given to find the distance from the Earth to the sun.  
\_\_\_\_\_
9. What is the perimeter of an equilateral triangle that has a side length of 16 cm?  
\_\_\_\_\_
10. What is the area of a triangle that has a base of 4 in. and a height of 4 in.?  
\_\_\_\_\_

# Nets for Solid Figures

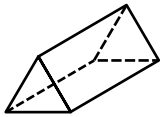
## Vocabulary

Complete.

A \_\_\_\_\_ is a two-dimensional pattern for a three-dimensional prism or pyramid.

Match each solid figure with its net. Write *a, b, c,* or *d.*

1.



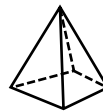
\_\_\_\_\_

2.



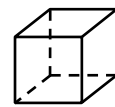
\_\_\_\_\_

3.



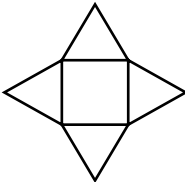
\_\_\_\_\_

4.

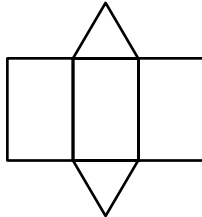


\_\_\_\_\_

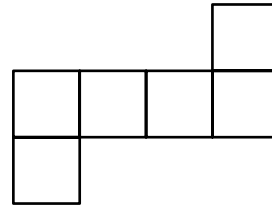
a.



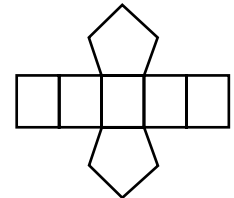
b.



c.



d.

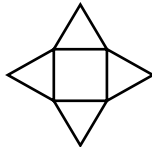


Circle the letter of the net that can be folded to make the figure.

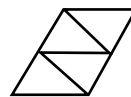
5.



a.



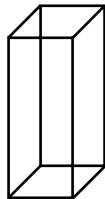
b.



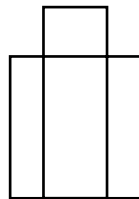
c.



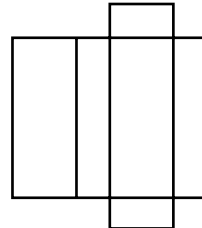
6.



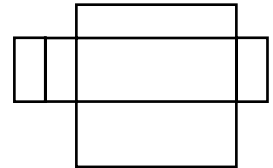
a.



b.



c.



## Mixed Review

7. What faces would you find in a net for a square pyramid?

\_\_\_\_\_

\_\_\_\_\_

8. Cara earns \$36.75 a week for 7 hours of babysitting. How much does she earn in 4 weeks? How much does she earn an hour?

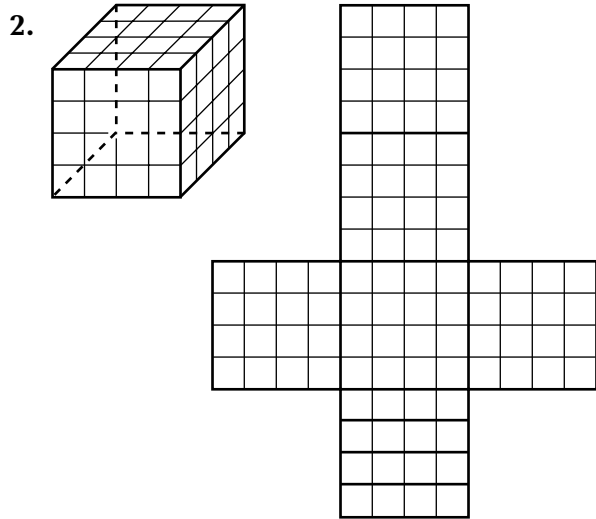
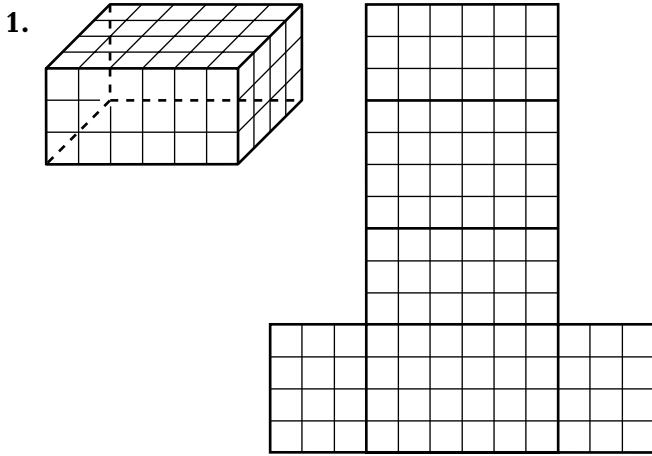
\_\_\_\_\_

\_\_\_\_\_

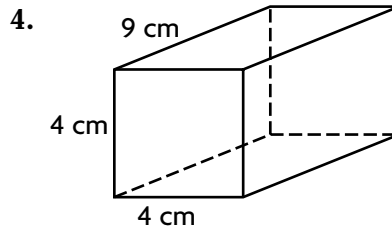
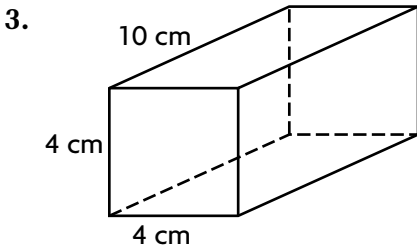
Name \_\_\_\_\_

### Surface Area

Use the net to find the area of each face. Then find the surface area of each prism.



For 3–4, find the surface area in  $\text{cm}^2$ . You may want to make the net.



5. What is the surface area of a box 6 feet long, 4 feet wide, and 8 feet high?

6. What is the surface area of a cube whose sides are 12 feet long?

### Mixed Review

7.  $8 - 2\frac{3}{8}$

8.  $35.8 \div 2$

9.  $3.5 \times 4.9$

10.  $5.79 \div 3$

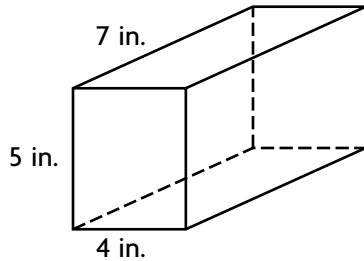
11. List all possible digits for  $\blacksquare$ .  
 $5.31 < 5.\blacksquare2 < 5.53$

12. Compare. Write  $<$ ,  $>$ , or  $=$ .  
 $0.532 \bullet 0.083$

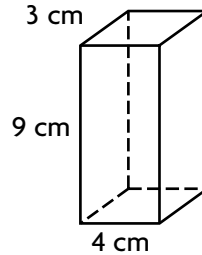
**Algebra: Volume**

Find the volume of each rectangular prism.

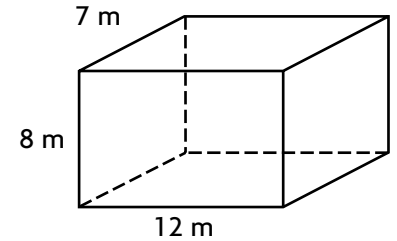
1.



2.



3.



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Algebra** Find the unknown dimension.

4. length = 11 yd

width = 5 yd

height = \_\_\_\_\_

Volume =  $165 \text{ yd}^3$

5. length = 14 ft

width = 9 ft

height = 4 ft

Volume = \_\_\_\_\_

6. length = 8 in.

width = \_\_\_\_\_

height = 9 in.

Volume =  $288 \text{ in.}^3$

7. length = 5 cm

width = 3 cm

height = 15 cm

Volume = \_\_\_\_\_

8. length = 6 yd

width = 8 yd

height = \_\_\_\_\_

Volume =  $288 \text{ yd}^3$

9. length = \_\_\_\_\_

width = 11 in.

height = 5 in.

Volume =  $385 \text{ in.}^3$

10. length = 15 in.

width = 8 in.

height = 2 in.

Volume = \_\_\_\_\_

11. length = 6.5 m

width = \_\_\_\_\_

height = 2.5 m

Volume =  $65 \text{ yd}^3$

12. length = \_\_\_\_\_

width =  $5\frac{1}{2}$  ft

height =  $3\frac{1}{4}$  ft

Volume =  $143 \text{ ft}^3$

**Mixed Review**

13. Margie bought 8 cans of tomato soup and 4 cans of mushroom soup. She spent nine dollars and eighty-eight cents. The tomato soup cost \$0.79 per can. What did the mushroom soup cost per can?

\_\_\_\_\_

14. Tom wants to buy a stereo that costs \$540.00. He has saved  $\frac{1}{3}$  of the cost. How much has Tom saved?

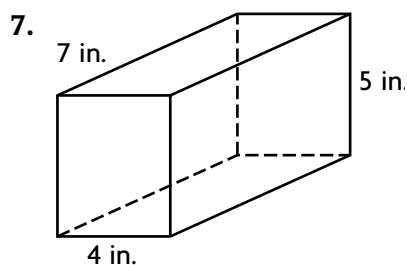
\_\_\_\_\_

## Measure Perimeter, Area, and Volume

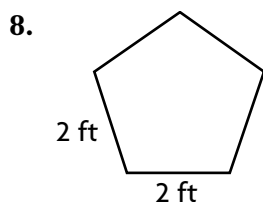
Tell the appropriate units to measure each. Write *units*, *square units*, or *cubic units*.

- |                                |                                  |                                |
|--------------------------------|----------------------------------|--------------------------------|
| 1. space in a cabinet<br>_____ | 2. space in an oven<br>_____     | 3. tile for a floor<br>_____   |
| 4. a wallpaper border<br>_____ | 5. paper to cover a box<br>_____ | 6. fence for a garden<br>_____ |

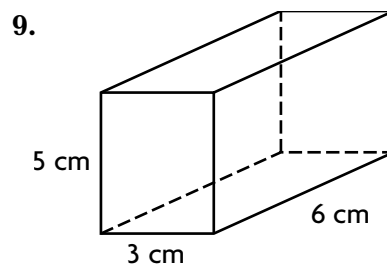
Write the units you would use to measure each.



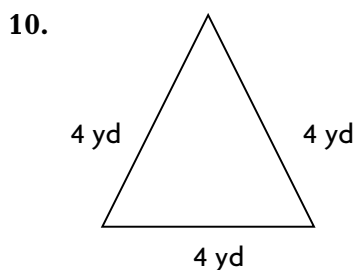
volume of this prism  
\_\_\_\_\_



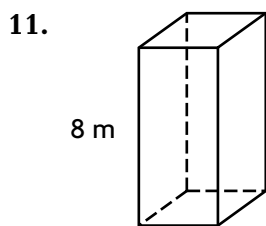
perimeter of this figure  
\_\_\_\_\_



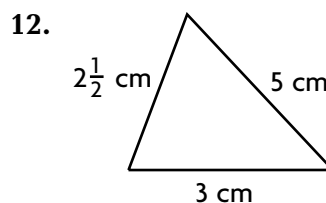
surface area of this prism  
\_\_\_\_\_



area of this figure  
\_\_\_\_\_



volume of this prism  
\_\_\_\_\_



area of this figure  
\_\_\_\_\_

### Mixed Review

Evaluate.

13.  $(27 - n) + 9$  if  $n = 19$   
\_\_\_\_\_

14.  $(n \times 5) - 6$  if  $n = 7$   
\_\_\_\_\_



## Problem Solving Skill: Use a Formula

Use a formula and solve.

1. A garden that is 18 feet wide and 22 feet long needs to be fenced. Will 25 yards of fencing be enough? Explain.
2. The trailer of a lumber truck is 15 feet wide, 18 feet long, and 10 feet high. Is the truck large enough to carry 2,500 cubic feet of lumber?

---

---

---

---

3. Tim has a box that is 18 inches long and 12 inches wide and has a volume of 3,240 cubic inches. He wants to pack an object that is 9 inches long, 6 inches wide, and 16 inches high. Will the object fit in the box? Explain.
4. New flooring is being installed in the school foyer. The area is 15 feet wide and 33 feet long. How many square yards of flooring are needed? What is the perimeter of the foyer, measured in feet? Explain how you found your answers.

---

---

---

---

---

---

---

---

---

---

## Mixed Review

Solve.

5. Classes at the high school begin at 7:45 A.M. Each class is 50 minutes long, and there is a 7-minute break after each class. At what time does the second class of the day end?
6. A swimming pool is 60 feet long and 30 feet wide. How many cubic feet of water will be needed to fill the pool to a depth of 8 feet?

---

---

## Understand Ratios

### Vocabulary

Fill in the blank.

1. A \_\_\_\_\_ is a comparison of two quantities.

Write each ratio and name the type of ratio.

2. There were 4 baseballs and 6 basketballs.

\_\_\_\_\_

3. Margo had 3 quarters and 2 pennies.

\_\_\_\_\_

4. Math is preferred to science by 19 of 20 students.

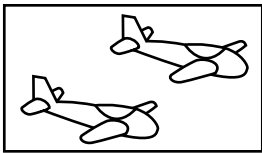
\_\_\_\_\_

5. Of 20 students, 11 are boys.

\_\_\_\_\_

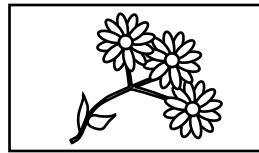
Write each ratio.

6. wings to planes



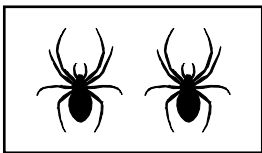
\_\_\_\_\_

7. flowers to stem



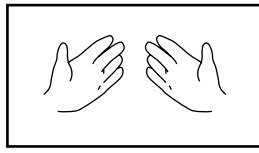
\_\_\_\_\_

8. legs to spiders



\_\_\_\_\_

9. fingers to hands



\_\_\_\_\_

### Mixed Review

Write each fraction in simplest form.

10.  $\frac{12}{24}$

\_\_\_\_\_

11.  $\frac{6}{9}$

\_\_\_\_\_

12.  $\frac{28}{49}$

\_\_\_\_\_

13.  $\frac{96}{144}$

\_\_\_\_\_

14.  $\frac{40}{45}$

\_\_\_\_\_



### Express Ratios

Write each ratio in three ways. Then name the type of ratio. Use the table below.

1. race games to sports games

\_\_\_\_\_

2. all games to arcade games

\_\_\_\_\_

3. sports games to all games

\_\_\_\_\_

Ben's Video Game Collection	
Type of Game	Number of Games
Race	5
Arcade	3
Sports	2

Circle *a* or *b* to show which fraction represents each ratio.

4. 7 to 9

a.  $\frac{9}{7}$     b.  $\frac{7}{9}$

5. 6:2

a.  $\frac{6}{2}$     b.  $\frac{2}{6}$

6. 9:3

a.  $\frac{9}{3}$     b.  $\frac{3}{9}$

7. 11 to 16

a.  $\frac{16}{11}$     b.  $\frac{11}{16}$

For 8–10, use the circle graph. Write each ratio in three ways.

8. What is the ratio of pictures to records?

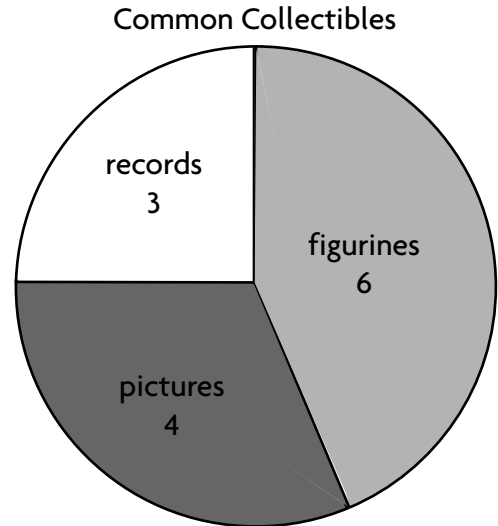
\_\_\_\_\_

9. What is the ratio of pictures to all collectibles?

\_\_\_\_\_

10. What is the ratio of figurines to all collectibles?

\_\_\_\_\_



### Mixed Review

11. What is the value of  $3^4$  ?

\_\_\_\_\_

12. Erik discovered he was  $\frac{3}{4}$  as tall as Wilt Chamberlain, the basketball player. Chamberlain is 86 inches tall. How tall is Erik?

\_\_\_\_\_

## Ratios and Proportions

### Vocabulary

Fill in the blank.

- \_\_\_\_\_ are ratios that name the same amount.
- A \_\_\_\_\_ is an equation that shows two equivalent ratios.

Tell whether the following ratios are equivalent. Write *yes* or *no*.

3.  $\frac{3}{8}$  and  $\frac{9}{24}$

4. 4:5 and 5:4

5. 7 to 4 and 28 to 16

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6.  $\frac{8}{4}$  and  $\frac{2}{1}$

7. 6:8 and 2:4

8. 3 to 15 and 4 to 20

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write three ratios that are equivalent to the given ratio.

9. 7:1

10. 6:3

\_\_\_\_\_

\_\_\_\_\_

11. 3 to 2

12.  $\frac{13}{15}$

\_\_\_\_\_

\_\_\_\_\_

Complete the ratio table.

13.	Number of oranges to make orange juice	5	_____	_____	_____
	Pints of orange juice	1	2	3	4

Tell whether the ratios form a proportion. Write *yes* or *no*.

14.  $\frac{3}{4} = \frac{6}{12}$  \_\_\_\_\_

15.  $\frac{8}{3} = \frac{24}{9}$  \_\_\_\_\_

16.  $\frac{3}{6} = \frac{15}{30}$  \_\_\_\_\_

### Mixed Review

17.  $9 \overline{)36.36}$

18.  $3 \overline{)158.67}$

19.  $7 \overline{)588.42}$

20.  $5 \overline{)0.180}$

21.  $6 \overline{)53.652}$

## Scale Drawings

### Vocabulary

Fill in the blank.

1. A ratio that compares the distance on a map to the actual distance is a \_\_\_\_\_.

Complete the ratio table.

2.	Scale Distance (in.)	1	2	_____	7	_____
3.	Actual Length (ft)	18	36	90	_____	198

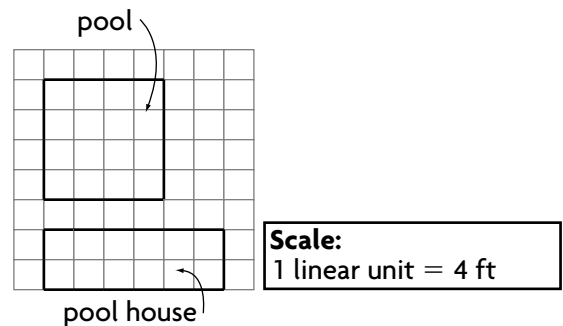
4.	Scale Distance (cm)	1	4	7	_____	15
5.	Actual Length (m)	7	28	_____	84	_____

For 6–9, use the drawing of the patio and the scale.

6. What is the width of the pool in units?  
\_\_\_\_\_

7. What is the actual width of the pool?  
\_\_\_\_\_

8. What is the perimeter of the pool house in units? in feet?  
\_\_\_\_\_



9. What is the ratio of linear units to feet?  
\_\_\_\_\_

### Mixed Review

10. How much fabric will Fran have left from a 20-yd bolt after cutting off  $5\frac{1}{2}$  yd?  
\_\_\_\_\_

11. Miguel's yard is 28 ft long and 36 ft wide. It costs \$0.50 per square foot to have grass planted. What is the total cost?  
\_\_\_\_\_

## Problem Solving Skill

### Too Much/Too Little Information

For 1–4, use this table. Write whether each problem has *too much* or *too little* information. Then solve if possible, or describe the additional information needed.

1. How many students are there in the fourth grade for every lunch buyer?

\_\_\_\_\_

2. How many adult buyers are there for every buyer in fifth grade?

\_\_\_\_\_

3. What is the ratio of school population to lunch buyers?

\_\_\_\_\_

Who Buys Lunch?	
Grade	Whole Class:Buyers
3	110:55
4	96:32
5	116:80
6	108:84

4. What is the ratio of lunch buyers in grades 3 through 5 to all students in those grades?

\_\_\_\_\_

Charneta loves a puppy at the pet store. His name is Beau, and he's a German shepherd. Beau costs \$175.00. Charneta will work at Mr. Taylor's store for \$6.00 an hour, sweeping floors and stocking shelves. How many hours will Charneta have to work to buy the dog?

5. What information is necessary to solve the problem?

- A** the name of the dog  
**B** what kind of work Charneta will do  
**C** how much she will earn an hour  
**D** the store owner's age

6. What is the least number of hours Charneta can work in order to buy the dog?

- F** 30 hours  
**G** 39 hours  
**H** 40 hours  
**J** 41 hours

### Mixed Review

7. 
$$\begin{array}{r} \$22.21 \\ + 78.99 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} \$47.50 \\ \times 1.50 \\ \hline \end{array}$$

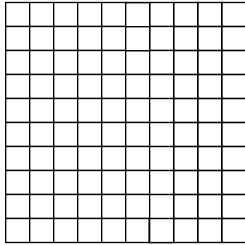
9. 
$$\begin{array}{r} 32.498 \\ - 17.020 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 156.52 \\ + 819.75 \\ \hline \end{array}$$

## Understand Percent

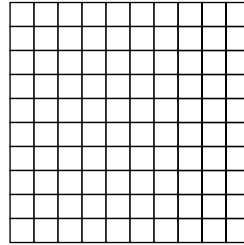
Model each ratio. Then write the percent.

1. 67 cents out of 1 dollar



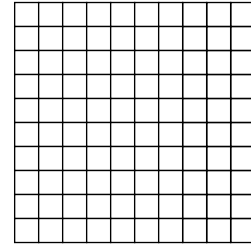
\_\_\_\_\_

2. 16 sheep out of 100 animals



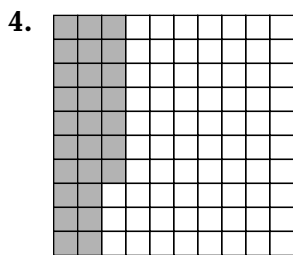
\_\_\_\_\_

3. 58 girls out of 100 children

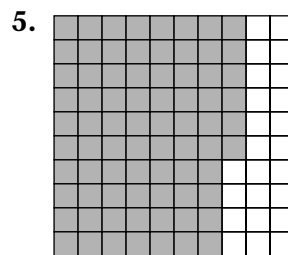


\_\_\_\_\_

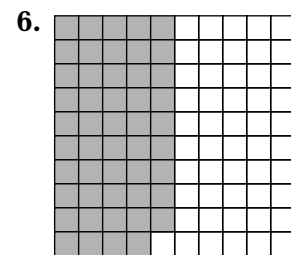
Write a percent to describe the shaded part.



Percent \_\_\_\_\_



Percent \_\_\_\_\_



Percent \_\_\_\_\_

Choose the more reasonable percent. Circle *a* or *b*.

7. "About *half* the students bring their own lunches to school," said the cafeteria worker.

- a. 48 percent  
b. 85 percent

8. "Very few children are sent to the principal's office," said the teacher.

- a. 98 percent  
b. 2 percent

## Mixed Review

Write as a decimal and a fraction.

9. thirty-nine hundredths

\_\_\_\_\_

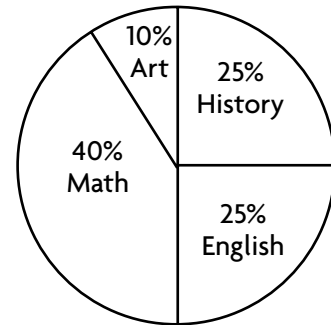
10. forty-four hundredths

\_\_\_\_\_

## Relate Decimals and Percents

For 1–4, use the circle graph. Write a decimal and a percent to describe each.

Newly Acquired Library Books



- What part of the library books are art books?  
\_\_\_\_\_
- What part of the library books are English books?  
\_\_\_\_\_
- What part of the library books are not history books?  
\_\_\_\_\_
- What part of the library books are not math books?  
\_\_\_\_\_

Write the number as a decimal and a percent.

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 5. sixty-four hundredths<br>_____ | 6. ninety-three hundredths<br>_____ |
| 7. fifteen hundredths<br>_____    | 8. thirty hundredths<br>_____       |

Write each decimal as a percent.

- |                |                |                |
|----------------|----------------|----------------|
| 9. 0.46 _____  | 10. 0.79 _____ | 11. 0.20 _____ |
| 12. 0.03 _____ | 13. 0.18 _____ | 14. 0.86 _____ |

Write each percent as a decimal.

- |               |               |               |
|---------------|---------------|---------------|
| 15. 38% _____ | 16. 74% _____ | 17. 2% _____  |
| 18. 16% _____ | 19. 22% _____ | 20. 91% _____ |

### Mixed Review

- |   |  |  |  |  |
|---|--|--|--|--|
| 21. $\begin{array}{r} 12 \\ \times 8 \\ \hline \end{array}$ | 22. $\begin{array}{r} 16 \\ \times 37 \\ \hline \end{array}$ | 23. $\begin{array}{r} 90 \\ \times 80 \\ \hline \end{array}$ | 24. $\begin{array}{r} 14 \\ \times 14 \\ \hline \end{array}$ | 25. $\begin{array}{r} 34 \\ \times 26 \\ \hline \end{array}$ |
|---|--|--|--|--|

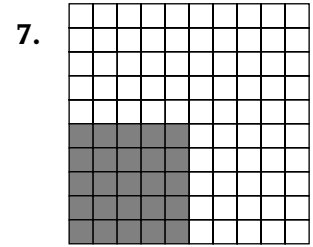
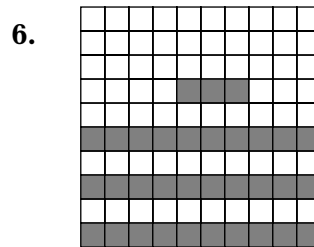
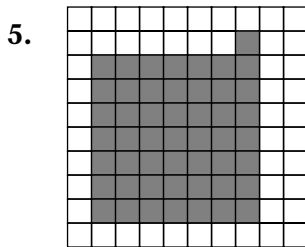
## Relate Fractions, Decimals, and Percents

Complete the tables. Write each fraction in simplest form.

	Fraction	Decimal	Percent
1.			12%
3.	$\frac{3}{4}$		

	Fraction	Decimal	Percent
2.	$\frac{17}{20}$		
4.			24%

Express the shaded part of each model as a decimal, a percent, and a fraction in simplest form.



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

8.  $11\% \bigcirc 0.11$       9.  $75\% \bigcirc \frac{1}{3}$       10.  $15\% \bigcirc 1.5$       11.  $50\% \bigcirc 0.25$

Tell whether each fraction or decimal is greater than 100% or between 1% and 100%. Write *greater* or *between*.

12.  $\frac{600}{100}$       13.  $\frac{1}{2}$       14. 6.9      15.  $\frac{1}{8}$

### Mixed Review

Find the sum, product, or difference.

16. 
$$\begin{array}{r} 294,432 \\ +126,008 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 9,009 \\ \times 621 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 237,432 \\ - 49,163 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 241,430 \\ +798,790 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 6,855 \\ \times 530 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 257,743 \\ - 68,889 \\ \hline \end{array}$$

## Find a Percent of a Number

Find the percent of the number.

- |                      |                     |                      |
|----------------------|---------------------|----------------------|
| 1. 5% of 50 _____    | 2. 15% of 45 _____  | 3. 35% of 42 _____   |
| 4. 200% of 80 _____  | 5. 150% of 20 _____ | 6. 65% of 150 _____  |
| 7. 60% of 93 _____   | 8. 60% of 60 _____  | 9. 150% of 75 _____  |
| 10. 25% of 200 _____ | 11. 2% of 48 _____  | 12. 40% of 150 _____ |

You can find the sales tax for any item you buy by finding a percent of the price. Find the sales tax for each price to the nearest cent.

- |                                   |                                       |                                      |                                    |
|-----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|
| 13. price: \$9.75<br>tax rate: 3% | 14. price: \$101.40<br>tax rate: 6.5% | 15. price: \$172.00<br>tax rate: 11% | 16. price: \$63.99<br>tax rate: 8% |
|-----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Mixed Review

- |   |  |
|---|--|
| 17. How many dimes are in \$28.00?<br><br>_____   | 18. Is 1.314 greater than or less than 1.341?<br><br>_____   |
| 19. At \$0.45 per dozen, how many dozens of oranges can you buy for \$1.35?<br><br>_____                                  | 20. A poultry farmer bought 2,000 chicks at \$0.45 each. What did he pay for the chicks?<br><br>_____  |
| 21. A butcher charged \$7.44 for a certain cut of meat at \$0.96 per pound. What was the weight of the meat?<br><br>_____ | 22. The local baseball team bought 10 bats at \$18.00 each and 7 balls at \$1.98 each. If the 9 players shared the costs equally, how much was each player's share?<br><br>_____ |
- |   |   |  |  |   |
|---|---|--|--|---|
| 23. $\begin{array}{r} 17 \\ \times 0.8 \\ \hline \end{array}$ | 24. $\begin{array}{r} 42.5 \\ \times 1.6 \\ \hline \end{array}$ | 25. $\begin{array}{r} 3.55 \\ \times 20 \\ \hline \end{array}$ | 26. $\begin{array}{r} 170 \\ \times 2.9 \\ \hline \end{array}$ | 27. $\begin{array}{r} 4,615 \\ \times 0.88 \\ \hline \end{array}$ |
|---|---|--|--|---|



## Mental Math: Percent of a Number

Use mental math to find the percent of each number.

1. 150% of 500

\_\_\_\_\_

2. 60% of 100

\_\_\_\_\_

3. 40% of 25

\_\_\_\_\_

4. 30% of 280

\_\_\_\_\_

5. 16% of 200

\_\_\_\_\_

6. 150% of 300

\_\_\_\_\_

7. 200% of 60

\_\_\_\_\_

8. 95% of 300

\_\_\_\_\_

9. 85% of 200

\_\_\_\_\_

10. 10% of 50

\_\_\_\_\_

11. 80% of 225

\_\_\_\_\_

12. 55% of 200

\_\_\_\_\_

13. 60% of 300

\_\_\_\_\_

14. 70% of 400

\_\_\_\_\_

15. 20% of 20

\_\_\_\_\_

16. 70% of 300

\_\_\_\_\_

17. 10% of 120

\_\_\_\_\_

18. 30% of 180

\_\_\_\_\_

19. 50% of 96

\_\_\_\_\_

20. 100% of 300

\_\_\_\_\_

## Mixed Review

For 21–24, write each in two other forms.

21. one and four hundredths

\_\_\_\_\_

22. three and six tenths

\_\_\_\_\_

23. 101.79

\_\_\_\_\_

24. 2.875

\_\_\_\_\_

25. James earns \$72.00 for 6 hours of work. If he earns the same amount each hour, how much does he earn for 4 hours of work? For 1 hour?

\_\_\_\_\_

26. The GCF of 9 and another number is 3. The LCM is 36. What is the number?

\_\_\_\_\_

27.  $\$2.50 \times 7 =$  \_\_\_\_\_

28.  $\$39.90 \times 2 =$  \_\_\_\_\_

## Problem Solving Strategy

### Make a Graph

Make a graph and solve.

1. Abigail surveyed the fifth-grade students to find out their favorite TV shows. She organized the data in the table below. What is the best way for her to display the data? Which TV show is most popular?

---

FAVORITE TV SHOWS	
Show	Percent of Votes
<i>Plimpton</i>	20%
<i>Queen of the Hill</i>	40%
<i>Atlas</i>	10%
<i>Harborwatch</i>	10%
<i>The Butler</i>	20%

### Mixed Review

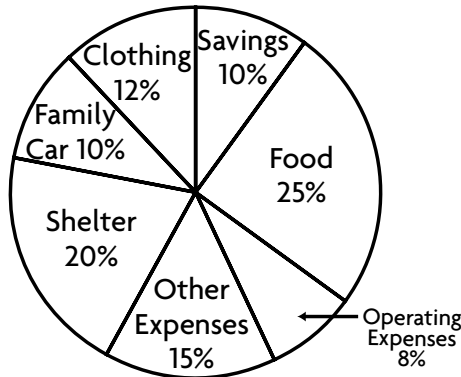
Solve.

2. Tamala recorded the average temperature for 6 months. She recorded  $48^\circ$  in April,  $59^\circ$  in May,  $69^\circ$  in June,  $76^\circ$  in July,  $74^\circ$  in August, and  $64^\circ$  in September. How can she best show this data?  
\_\_\_\_\_
3. Mylan spent \$3 on a magazine. He spent half of his remaining money on a video game. He then spent half of his remaining money on a book. He had \$12 left. How much money did Mylan begin with?  
\_\_\_\_\_
4. A dog pen will be 18 feet long and 12 feet wide. One length will be formed by the side of a garage. How much fencing is needed for the other 3 sides?  
\_\_\_\_\_
5. There were 63 people in a hotel. Then 7 checked out, and 3 times that number checked in. How many people are in the hotel now?  
\_\_\_\_\_

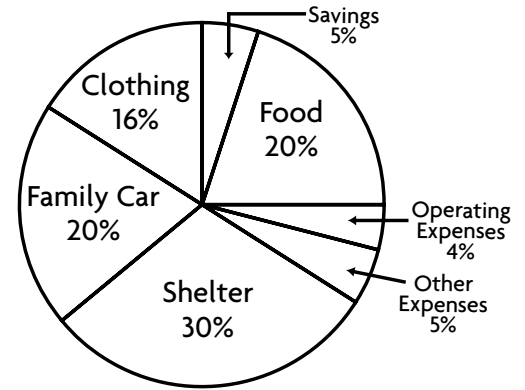
## Compare Data Sets

For 1–8, use the two circle graphs. Both families planned a monthly budget for all their expenses.

**PETERSON FAMILY BUDGET**  
(\$850 per month)



**ASHLAND FAMILY BUDGET**  
(\$1,000 per month)



1. How much money did the Peterson family spend on food on a monthly basis?

\_\_\_\_\_

2. How much money did the Ashland family spend on food on a monthly basis?

\_\_\_\_\_

3. Which family put more money into savings each month? how much more?

\_\_\_\_\_

4. Which family paid more money for shelter each month? how much more?

\_\_\_\_\_

5. If the Peterson family income increased by \$50.00 per month and the family kept the same percents, how much would they spend on clothing?

\_\_\_\_\_

6. If the Ashland family income increased by \$100 per month and kept the same percents, how much would they spend on other expenses?

\_\_\_\_\_

7. What is the total budget of the Peterson family for one year?

\_\_\_\_\_

8. What is the yearly budget for the family car for the Ashland family?

\_\_\_\_\_

### Mixed Review

9. 
$$\begin{array}{r} 6.34 \\ - 5.13 \\ \hline \end{array}$$

10. 
$$0.02 \overline{)12.8}$$

11. 
$$\begin{array}{r} 47.74 \\ - 33.83 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 28.61 \\ + 95.75 \\ \hline \end{array}$$

## Probability Experiments

### Vocabulary

Fill in the blank.

1. A table of \_\_\_\_\_ shows results that could occur.

Write the possible events.

2. rolling a cube labeled 12, 14, 16, 18, 20, 22

\_\_\_\_\_

3. spinning the pointer on a spinner with sections of red, blue, and yellow

\_\_\_\_\_

4. pulling a can from a grocery bag with 1 can of corn, 2 cans of beans, and 1 can of peas

\_\_\_\_\_

5. pulling a shape out of a bag that has 3 red squares, 2 blue squares, and 0 yellow squares

\_\_\_\_\_

6. tossing a coin with heads on one side and tails on the other

\_\_\_\_\_

7. pulling a marble from a bag that has 1 red, 2 green, and 1 yellow marble

\_\_\_\_\_

### Mixed Review

Find the value of  $n$ .

8.  $12 + 5 = n$  \_\_\_\_\_    9.  $20 - n = 5$  \_\_\_\_\_    10.  $n - 8 = 15$  \_\_\_\_\_  
 11.  $6 + n = 11$  \_\_\_\_\_    12.  $n + 14 = 28$  \_\_\_\_\_    13.  $40 - n = 5$  \_\_\_\_\_  
 14.  $10 \times n = 100$  \_\_\_\_\_    15.  $n \times 7 = 28$  \_\_\_\_\_    16.  $81 \div n = 9$  \_\_\_\_\_  
 17.  $8 \times 2 = n$  \_\_\_\_\_    18.  $45 \div n = 5$  \_\_\_\_\_    19.  $n \times 9 = 27$  \_\_\_\_\_

Divide.

20.  $14 \overline{)126}$     21.  $6 \overline{)0.036}$     22.  $17 \overline{)289}$     23.  $23 \overline{)1035}$

## Outcomes

### Vocabulary

Fill in the blank.

1. A \_\_\_\_\_ shows all the possible outcomes of an event.

Make a tree diagram to show the possible choices. Solve.

2. For a snack, Sue can have either an apple or a cheese slice. She can have either a glass of milk or a glass of grape juice. How many different snack choices does Sue have?

\_\_\_\_\_

3. For breakfast, Jill can have either oat or wheat cereal. She can top the cereal with either raisins, bananas, strawberries, or blueberries. How many breakfast choices does Jill have?

\_\_\_\_\_

4. Bill can make a picture with either paints or markers or both. He can use either construction paper or poster paper. How many different ways can Bill make a picture?

\_\_\_\_\_

5. For gift wrapping, Elsa has a choice of either red, blue, pink, or orange paper. She has a choice of either red, blue, pink, or orange ribbon. How many different ways can Elsa wrap a gift?

\_\_\_\_\_

### Mixed Review

6. 
$$\begin{array}{r} 4.01 \\ + 3.69 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 6.905 \\ + 4.98 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 9.463 \\ - 1.02 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 16.5 \\ - 9.6 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 28.06 \\ + 5.09 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 7.35 \\ - 0.98 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 7.150 \\ + 5.051 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 0.108 \\ + 7.962 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 0.54 \\ - 0.37 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 5.982 \\ + 0.153 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 19.71 \\ - 15.09 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 6.118 \\ + 4.212 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 31.407 \\ + 50.527 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 18.3 \\ + 28.8 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 6.3172 \\ - 1.0984 \\ \hline \end{array}$$



## Probability Expressed as a Fraction

### Vocabulary

Fill in the blanks.

- \_\_\_\_\_ is the chance that an event will happen.
- Each event is \_\_\_\_\_, or has the same chance of happening.

Write a fraction for the probability of pulling each color marble from a bag of 4 red, 1 green, 2 blue, and 3 yellow marbles.

3. green                      4. red                      5. orange                      6. blue

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write a fraction for the probability of spinning each color on a spinner with 2 red, 3 yellow, 2 green, and 1 blue sections.

7. yellow                      8. red                      9. yellow or blue      10. blue

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. Angie is one of 30 girls trying out for the 12 positions on the basketball team. What is the probability that Angie will make the team?

\_\_\_\_\_

\_\_\_\_\_

12. Of 100 tickets available for the school raffle, Tom bought 3, Jack bought 5, and Mark bought 2. What is the probability of each boy winning?

\_\_\_\_\_

\_\_\_\_\_

### Mixed Review

13.  $3.2 \overline{)653}$

\_\_\_\_\_

14.  $(7 \times 6) + (3 \times \frac{1}{2}) = n$

\_\_\_\_\_

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

\_\_\_\_\_

16.  $(7 \times 4) - (2.5 \times 2) = n$

\_\_\_\_\_

17.  $\frac{2}{5} \times \frac{4}{3}$

\_\_\_\_\_

18.  $329 - (12 \times 11) = n$

\_\_\_\_\_



## Compare Probabilities

For 1–6, use a bag of 3 red, 5 blue, 4 yellow, and 3 green buttons. Write each probability as a fraction. Tell which event is more likely.

1. You pull a yellow button. \_\_\_\_\_

You pull a red button. \_\_\_\_\_

More likely \_\_\_\_\_

2. You pull a blue button. \_\_\_\_\_

You pull a green button. \_\_\_\_\_

More likely \_\_\_\_\_

3. You pull a red or yellow button.

\_\_\_\_\_

You pull a green or blue button.

\_\_\_\_\_

More likely \_\_\_\_\_

4. You pull a blue button.

\_\_\_\_\_

You pull a black button.

\_\_\_\_\_

More likely \_\_\_\_\_

5. You pull a button that isn't

green. \_\_\_\_\_

You pull a button that isn't

yellow. \_\_\_\_\_

More likely \_\_\_\_\_

6. You pull a button that isn't red.

\_\_\_\_\_

You pull a button that isn't blue.

\_\_\_\_\_

More likely \_\_\_\_\_

7. Joey had 2 pairs of red socks, 4 pairs of black socks, and 12 pairs of white socks. What is the probability that he will pull a pair of black socks from his drawer?

\_\_\_\_\_

8. Raimondo has pizza once a week for dinner. What is the probability that he will have pizza for dinner tonight?

\_\_\_\_\_

### Mixed Review

9.  $35.6 \overline{)2,071.92}$

10.  $\frac{1}{2} \times \frac{5}{6} =$

11.  $3\frac{1}{3} \div \frac{1}{6} =$

## Problem Solving Strategy

### Make an Organized List

Make an organized list to solve.

1. Aber is conducting a probability experiment with a number cube and two marbles. The cube is numbered 1–6. One marble is red, the other blue. How many possible outcomes are there for this experiment? What is the probability for getting 1 and blue?  
  
\_\_\_\_\_
2. Mark feeds his cat a cup of dry food and a can of wet food every day. The dry food is either chicken or fish flavored. The wet food is either tuna, salmon, or beef. List all the possible combinations of wet and dry cat food. What is the probability of picking chicken?  
  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Mixed Strategy Practice

Solve.

3. In the school election, Dave received 38 percent of the vote, Marcia received 41 percent, and Claudia received 21 percent. What type of graph would Dave use to display the data?  
  
\_\_\_\_\_
4. Estelle uses the numbers 3, 5, and 7 to write two-digit numbers without repeating any digits in the same number. List her numbers.  
  
\_\_\_\_\_
5. Martha has 6 coins that are quarters, dimes, and nickels. She has a total of \$0.80. What combination of coins does she have?  
  
\_\_\_\_\_
6. At the movies, Jorge spent \$0.95 on soda and \$2.25 on popcorn. The ticket cost \$4.50. If he has \$2.30 left, how much money did Jorge have to begin with?  
  
\_\_\_\_\_