

Are You Ready?

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Resources Online

✓ Vocabulary

Choose the best term from the list to complete each sentence.

- To solve the equation $\frac{1}{4}x = 24$, you can ___?___ both sides of the equation by 4. **multiply**
- A(n) ___?___ is used to name a part of a whole. **fraction**
- When two numbers have the same value, they are said to be ___?___ **equivalent**
- When writing 0.25 as a fraction, 25 is the ___?___ and 100 is the ___?___ **numerator; denominator**

divide
denominator
equivalent
fraction
multiply
numerator

Complete these exercises to review skills you will need for this chapter.

✓ Simplify Fractions

Write each fraction in simplest form.

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

✓ Write Equivalent Fractions

Write three equivalent fractions for each given fraction. Possible answers:

8. $\frac{4}{16}$ $\frac{1}{4}$, $\frac{2}{8}$, $\frac{3}{12}$ 9. $\frac{5}{10}$ $\frac{1}{2}$, $\frac{10}{20}$, $\frac{25}{50}$ 10. $\frac{5}{6}$ $\frac{10}{12}$, $\frac{15}{18}$, $\frac{20}{24}$

✓ Compare Fractions

Compare. Write >, <, or =.

11. $\frac{3}{10}$ $\frac{2}{5}$ < 12. $1\frac{3}{4}$ $1\frac{5}{7}$ > 13. $\frac{5}{8}$ $\frac{1}{2}$ > 14. $2\frac{11}{12}$ $\frac{35}{12}$ =

✓ Write Fractions as Decimals

Write each fraction as a decimal.

15. $\frac{1}{2}$ 0.5 16. $\frac{7}{20}$ 0.35 17. $\frac{2}{25}$ 0.08 18. $\frac{3}{25}$ 0.12

✓ Multiply Decimals

Multiply.

19. $0.42 \cdot 10$ 4.2 20. $0.3 \cdot 52$ 15.6 21. $20.5 \cdot 0.25$ 5.125
23. $9.8 \cdot 0.2$ 1.96 24. $0.8 \cdot 7.4$ 5.92 25. $0.52 \cdot 0.64$ 0.3328
22. $6.75 \cdot 0.40$ 2.7
26. $0.75 \cdot 8.9$ 6.675

Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Simplify Fractions

Write Equivalent Fractions

Compare Fractions

Write Fractions as Decimals

Multiply Decimals

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine when intervention is necessary or enrichment is appropriate.

Resources



Are You Ready? Intervention and Enrichment Worksheets



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ARE YOU READY? Diagnose and Prescribe

NO
INTERVENE

YES
ENRICH

✓ Prerequisite Skill	ARE YOU READY? Intervention	
	Worksheets	Online
✓ Simplify Fractions	Skill 19	Activity 19
✓ Write Equivalent Fractions	Skill 24	Activity 24
✓ Compare Fractions	Skill 25	Activity 25
✓ Write Fractions as Decimals	Skill 26	Activity 26
✓ Multiply Decimals	Skill 40	Activity 40

Diagnose and Prescribe Online

ARE YOU READY? Enrichment


Worksheets

Online

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

 **Assessment Resources**
Section Quiz

INTERVENTION 

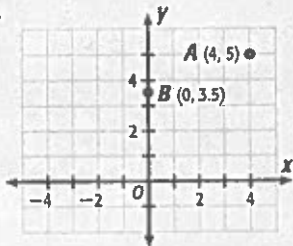
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Intervention and
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8-9.



Quiz for Lessons 1 Through 4

✓ 1 Ratios and Rates

Use the table to write each ratio.

- classical CDs to rock CDs 4:10
- country to total CDs 9:48
- A package containing 6 pairs of socks costs \$6.89. A package containing 4 pairs of socks costs \$4.64. Which is the better deal? the 6-pair pack of socks

Type	Count	Type	Count
Classical	4	Jazz	3
Country	9	Pop	14
Dance	8	Rock	10

✓ 2 Using Tables to Explore Equivalent Ratios and Rates

Use a table to find three equivalent ratios. Possible answers:

- $\frac{21}{30}$, $\frac{7}{10}$, $\frac{14}{20}$, $\frac{28}{40}$
- 15:6 5:2, 10:4, 20:8
- 3 to 101 6 to 202, 9 to 303, 12 to 404
- The table shows the wait time for different groups at a restaurant. Predict how long a group of 8 will wait. 24 min

Number in Group	1	2	5	7	10
Wait Time (min)	3	6	15	21	30

✓ 3 Ordered Pairs

Graph and label each point on a coordinate grid.

- A (4, 5)
- B $(0, 3\frac{1}{2})$

✓ 4 Proportions

Find the missing value in each proportion.



- $\frac{1}{4} = \frac{n}{12}$ $n = 3$
- $\frac{3}{n} = \frac{15}{25}$ $n = 5$
- $\frac{n}{4} = \frac{18}{6}$ $n = 12$
- $\frac{10}{4} = \frac{5}{n}$ $n = 2$

READY TO GO ON?

Diagnose and Prescribe

NO
INTERVENE

YES
ENRICH

Ready to Go On? Intervention	READY TO GO ON? Intervention		Diagnose and Prescribe Online
	 Worksheets	 Online	
✓ Lesson 1	1 Intervention	Activity 1	
✓ Lesson 2	2 Intervention	Activity 2	
✓ Lesson 3	3 Intervention	Activity 3	
✓ Lesson 4	4 Intervention	Activity 4	

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Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

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Ready to Go On?

Quiz for Lessons 5 Through 8

5 Percents

Write each percent as a fraction in simplest form.

1. 60% $\frac{3}{5}$ 2. 15% $\frac{3}{20}$ 3. 75% $\frac{3}{4}$

Write each percent as a decimal.

4. 34% **0.34** 5. 77% **0.77** 6. 6% **0.06**
7. About 71% of Earth's surface is covered with water. Write 71% as a decimal. **0.71**

6 Percents, Decimals, and Fractions

Write each fraction as a percent.

8. $\frac{9}{20}$ **45%** 9. $\frac{2}{3}$ **66.6%** 10. $\frac{21}{50}$ **42%**

Write each decimal as a percent.

11. 0.28 **28%** 12. 0.9 **90%** 13. 0.02 **2%**
14. Mike's baseball team won $\frac{17}{20}$ of its games. What percent of the games did Mike's baseball team win? **85%**

7 Percent of a Number

Find the percent of each number.

15. 25% of 84 **21** 16. 52% of 300 **156** 17. 0.5% of 40 **0.2** 18. 160% of 450 **720**
19. 41% of 122 **50.02** 20. 178% of 35 **62.3** 21. 29% of 88 **25.52** 22. 80% of 176 **140.8**

23. Students get a 15% discount off the original prices at the Everything Fluorescent store during its back-to-school sale. Find the amount of discount on fluorescent notebooks originally priced at \$7.99. **\$1.20**

8 Solving Percent Problems

Solve. Round to the nearest tenth, if necessary.

24. 14 is 44% of what number? **31.8** 25. 22 is what percent of 900? **2.4%**
26. 99 is what percent of 396? **25%** 27. 75 is 24% of what number? **312.5**
28. The sales tax on a \$105 digital camera is \$7.15. What is the sales tax rate? **6.8%**

NO
INTERVENE

READY TO GO ON?
Diagnose and Prescribe

YES
ENRICH

Ready to Go On? Intervention	READY TO GO ON? Intervention		Diagnose and Prescribe Online
	Worksheets	Online	
<input checked="" type="checkbox"/> Lesson 5	5 Intervention	Activity 5	
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<input checked="" type="checkbox"/> Lesson 7	7 Intervention	Activity 7	
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Enrichment

Worksheets
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Chapter Test

CHAPTER

7

Use the table to write each ratio.

- three equivalent ratios to compare dramas to documentaries 6:2, 12:4, 3:1
- documentaries to total videos 2:26
- music videos to exercise videos 3:3
- Which is a better deal—5 videos for \$29.50 or 3 videos for \$17.25? 3 videos for \$17.25

Comedy	5	Cartoon	7
Drama	6	Exercise	3
Music	3	Documentary	2

Find the value of n in each proportion.

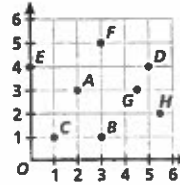
5. $\frac{5}{6} = \frac{n}{24}$ $n = 20$ 6. $\frac{8}{n} = \frac{12}{3}$ $n = 2$ 7. $\frac{n}{10} = \frac{3}{6}$ $n = 5$ 8. $\frac{3}{9} = \frac{4}{n}$ $n = 12$

9. The table shows the time it takes Jenny to swim laps. Predict how long it will take her to swim 14 laps. 10.5 min

Number of Laps	4	8	12	16
Time (min)	3	6	9	12

Name the ordered pair for each point on the grid.

10. A (2, 3) 11. B (3, 1) 12. C (1, 1) 13. D (5, 4)
 14. E (0, 4) 15. F (3, 5) 16. G (4 $\frac{1}{2}$, 3) 17. H (5 $\frac{1}{2}$, 2)



Graph and label each point on a coordinate grid.

18. T(3, 4) 19. M($\frac{1}{2}$, 6) 20. P(5, 1) 21. S(3 $\frac{1}{2}$, 2)

Write each percent as a fraction in simplest form and as a decimal.

22. 66% $\frac{33}{50}$, 0.66 23. 90% $\frac{9}{10}$, 0.9 24. 5% $\frac{1}{20}$, 0.05 25. 18% $\frac{9}{50}$, 0.18

Write each decimal or fraction as a percent.

26. 0.546 54.6% 27. 0.092 9.2% 28. $\frac{14}{25}$ 56% 29. $\frac{1}{8}$ 12.5%

Find the percent of each number.

30. 35% of 210 73.5 31. 16% of 85 13.6 32. 250% of 3075

Solve.

33. 36 is what percent of 150? 24%
 34. 51 is what percent of 340? 15%
 35. 36 is 40% of what number? 90
 36. Hampton Middle School is expecting 376 seventh-graders next year. This is 40% of the expected school enrollment. How many students are expected to enroll in the school next year? 940 students

Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills in the chapter.

INTERACTIVE Online Edition

Resources



Assessment Resources

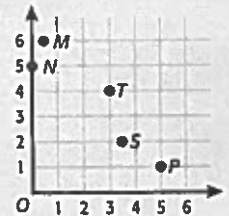
- Chapter Tests
 - Free Response (Levels A, B, C)
 - Multiple Choice (Levels A, B, C)
 - Performance Assessment

IDEA Works!

Modified Chapter Test

Answers

18–21.



Are You Ready?

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Resources Online

✓ Vocabulary

Choose the best term from the list to complete each sentence.

- A(n) is a quadrilateral with opposite sides that are parallel and congruent. **parallelogram**
- Some customary units of length are and .
Some metric units of length are and .
inches; feet; centimeters; meters
- A(n) is a quadrilateral with side lengths that are all congruent and four right angles. **square**
- A(n) is a polygon with six sides. **hexagon**

centimeters
cube
feet
hexagon
inches
liters
meters
parallelogram
square
trapezoid

Complete these exercises to review skills you will need for this chapter.

✓ Add and Multiply Whole Numbers, Fractions, and Decimals

Find each sum or product.

- $1.5 + 2.4 + 3.6 + 2.5$ 6. $2 \cdot 3.5 \cdot 4$ 28 7. $\frac{22}{7} \cdot 21$ 66
- $\frac{1}{2} \cdot 5 \cdot 4$ 10 8. $3.2 \cdot 5.6$ 17.92 9. $\frac{1}{2} \cdot 10 \cdot 3$ 15
- $(2 \cdot 5) + (6 \cdot 8)$ 58 10. $2(3.5) + 2(1.5)$ 10 11. $9(20 + 7)$ 243

✓ Measure with Metric Units

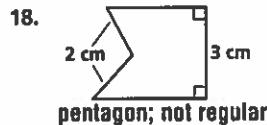
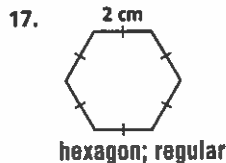
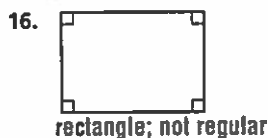
Use a centimeter ruler to measure each line to the nearest centimeter.

14. _____ 6 cm

15. _____ 4 cm

✓ Identify Polygons

Name each polygon. Determine whether it appears to be regular or not regular.



Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Add and Multiply Whole Numbers, Fractions, and Decimals

Measure with Metric Units

Identify Polygons

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine what intervention is necessary or enrichment is appropriate.

Resources

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ARE YOU READY?

Diagnose and Prescribe

✓ Prerequisite Skill	ARE YOU READY? Intervention	
	Worksheets	Online
✓ Add and Multiply Whole Numbers, Fractions, and Decimals	Skills 34, 40, 42	Activities 34, 40, 42
✓ Measure with Metric Units	Skill 72	Activity 72
✓ Identify Polygons	Skill 76	Activity 76

Diagnose and Prescribe Online

YES
ENRICH

ARE YOU READY?
Enrichment

 Worksheets

 Online

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

 **Assessment Resources**
Section Quiz

INTERVENTION 

Resources

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Quiz for Lessons 1 Through 5

1 Converting Customary Units

Use the table for Exercises 1 and 2.

- Convert Ty's length to feet and inches. $1\text{ ft } 9\frac{1}{2}\text{ in.}$
- How many ounces does Ty weigh? **152 oz**

Baby Ty Rodriguez	
Birth Date	July 8, 2005, 11:50 P.M.
Weight	9 lb 8 oz
Length	$21\frac{1}{2}\text{ in.}$

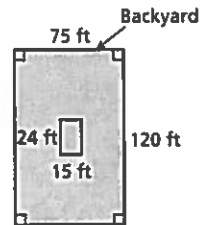
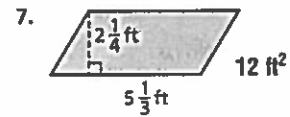
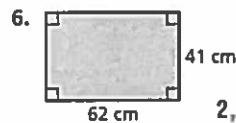
2 Converting Metric Units

Convert.

- $3\text{ m} = \square\text{ cm}$ **800**
- $12\text{ kg} = \square\text{ g}$ **12,000**
- $2,000\text{ mL} = \square\text{ L}$ **2**

3 Area of Rectangles and Parallelograms

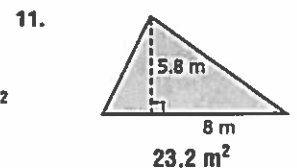
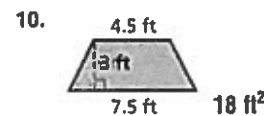
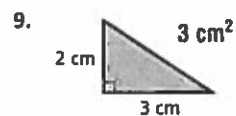
Find the area of each figure.



8. Mark is making a rectangular vegetable garden in his backyard. The rest of the backyard is covered with gravel. What is the area of the backyard that is covered with gravel?

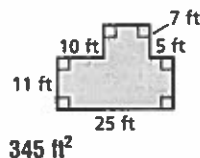
4 Area of Triangles and Trapezoids

Find the area of each figure.

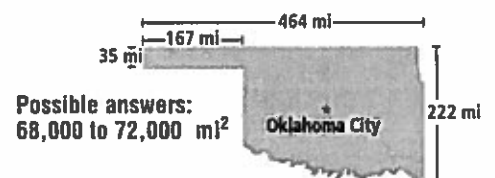


5 Area of Composite Figures

12. Find the area of the polygon.



13. Using the approximate dimensions, estimate the area of the state of Oklahoma.





Ready to Go On?

READY TO GO ON?

Diagnose and Prescribe



Ready to Go On? Intervention	READY TO GO ON? Intervention		Diagnose and Prescribe Online
	 Worksheets	 Online	
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<input checked="" type="checkbox"/> Lesson 4	4 Intervention	Activity 4	
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ARE YOU READY? Enrichment

 **Worksheets**
 **Online**

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

 **Assessment Resources**
Section Quiz

INTERVENTION 

Resources

 **Ready to Go On? Intervention and Enrichment Worksheets**

 **Ready to Go On? Online**

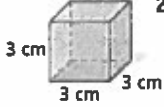
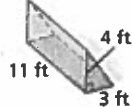

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Quiz for Lessons 6 and 7

 **6 Volume of Prisms**



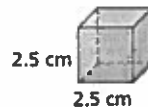
Find the volume of each prism.

1.  27 cm^3 2.  66 ft^3 3.  121.5 mm^3

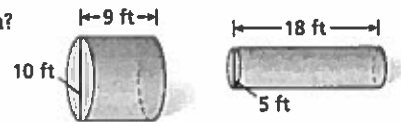
4. There are 16 cubic boxes of erasers in a case. What are all the possible dimensions for a case of erasers? $2 \times 8 \times 1$, $2 \times 2 \times 4$, $4 \times 4 \times 1$

 **7 Surface Area**

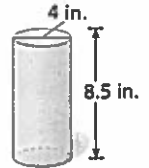
Find the surface area S of each figure. Use 3.14 for π , and round to the nearest hundredth.

5.  184 m^2 6.  39 ft^2 7.  37.5 cm^2

8. Which cylinder has the greater surface area?
The purple cylinder



9. A company sells oats in a cylindrical container with dimensions as shown. A rectangular label gets glued around the lateral surface of the container. What is the area of the label? Round your answer to the nearest square inch. 107 in^2







READY TO GO ON?

Diagnose and Prescribe

NO
INTERVENE

YES
ENRICH

READY TO GO ON? Intervention

Ready to Go On? Intervention	READY TO GO ON? Intervention	
	 Worksheets	 Online
 Lesson 6	6 Intervention	Activity 6
 Lesson 7	7 Intervention	Activity 7
		Diagnose and Prescribe Online

READY TO GO ON? Enrichment

 **Worksheets**
 **Online**

Chapter Test

CHAPTER

8

Chapter Test

Organizer

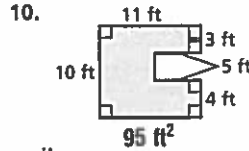
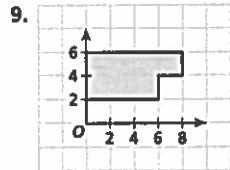
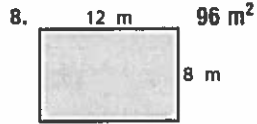
Objective: Assess students' mastery of concepts and skills in the chapter.

INTERACTIVE Online Edition

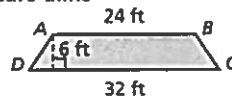
Convert.

- 85 mm = cm 8.5
- 6 fl oz = c 0.75
- 3,000 km = m
- 9 yd = in. 324
- 15,840 ft = mi 3
- 1.5 T = lb 3,000,000
3000
- Baking** One stick of butter is equivalent to $\frac{1}{2}$ cup of butter. A recipe calls for 2 tablespoons of butter. There are 16 tablespoons in a cup. How much of a stick of butter should you use? $\frac{1}{4}$ stick

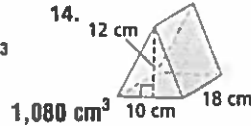
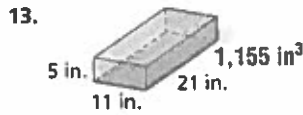
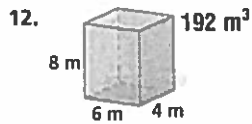
Find the area of each figure.



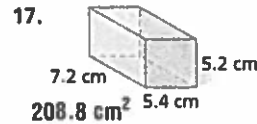
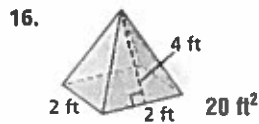
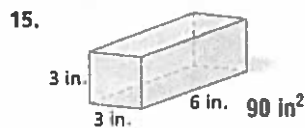
11. A patio is in the shape of a trapezoid. What is the area of the patio? 168 ft²



Find the volume V of each three-dimensional figure.



Find the surface area S of each three-dimensional figure.



18. A pizza box is just big enough to fit a large pizza, which has a diameter of 15 in. If the box is 1.5 in. tall, what is the surface area of the box? 540 in²

Chapter Test

Resources



Assessment Resources

- Chapter Tests
- Free Response (Levels A, B, C)
- Multiple Choice (Levels A, B, C)
- Performance Assessment

IDEA Works!
Modified Chapter Test

Are You Ready?

Learn It Online
Resources Online

✓ Vocabulary

Choose the best term from the list to complete each sentence.

- When you ? a numerical expression, you find its value. **evaluate**
- ? are the set of numbers 0, 1, 2, 3, 4, . . . **whole numbers**
- A(n) ? is an exact location in space. **point**
- A(n) ? is a mathematical statement that two quantities are equal. **equation**

equation
evaluate
exponents
less than
point
whole numbers

Complete these exercises to review skills you will need for this chapter.

✓ Compare Whole Numbers

Write $<$, $>$, or $=$ to compare the numbers.

5. $9 \square 2$ $>$ 6. $4 \square 5$ $<$ 7. $8 \square 1$ $>$ 8. $3 \square 3$ $=$
 9. $412 \square 214$ 10. $1,076 \square 1,074$ 11. $502 \square 520$ 12. $9,123 \square 9,001$
 $>$ $>$ $<$ $>$

✓ Whole-Number Operations

Add, subtract, multiply, or divide.

13. $7 + 6$ 13 14. $15 - 8$ 7 15. $6 \cdot 7$ 42 16. $25 \div 5$ 5
 17. $129 + 30$ 159 18. $32 - 25$ 7 19. $119 \cdot 5$ 595 20. $156 \div 6$ 26

✓ Solve One-Step Equations

Solve each equation.

21. $4t = 32$ $t = 8$ 22. $b - 4 = 12$ $b = 16$ 23. $24 = 6r$ $r = 4$
 24. $3x = 72$ $x = 24$ 25. $8 = 4a$ $a = 2$ 26. $m + 3 = 63$ $m = 60$

✓ Graph Ordered Pairs

Graph each ordered pair.

27. (1, 3) 28. (0, 5) 29. (3, 2) 30. (4, 0)
 31. (6, 4) 32. (2, 5) 33. (0, 1) 34. (1, 0)

Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Compare Whole Numbers
Whole-Number Operations
Solve One-Step Equations
Graph Ordered Pairs

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine whether intervention is necessary or enrichment is appropriate.

Resources

Are You Ready? Intervention and Enrichment Worksheets

Are You Ready? Online

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Answers

27–34. See Additional Answers.

NO
INTERVENE

ARE YOU READY? Diagnose and Prescribe

YES
ENRICH

✓ Prerequisite Skill	ARE YOU READY? Intervention	
	Worksheets	Online
✓ Compare Whole Numbers	Skill 4	Activity 4
✓ Whole-Number Operations	Skill 34	Activity 34
✓ Solve One-Step Equations	Skill 58	Activity 58
✓ Graph Ordered Pairs	Skill 69	Activity 69

Diagnose and Prescribe Online

ARE YOU READY? Enrichment

Worksheets
 Online

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

**Ready to Go On?
Intervention and
Enrichment Worksheets**

Ready to Go On? Online

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Ready to Go On?

Quiz for Lessons 1 Through 2

1 **Integers and Absolute Value**

Name a positive or negative number to represent each situation.

1. a gain of 10 yards **+10** 2. 45 feet below sea level **-45**

Write the opposite of each integer.

3. 9 **-9** 4. -17 **+17** 5. 1 **-1** 6. -20 **+20**

Write the absolute value of each integer.

7. |7| **7** 8. |-6| **6** 9. |-8| **8** 10. |-9| **9**

11. A patient's temperature was taken at 7:00, at 8:00, and again at 9:00. The patient's temperature increased by 2 degrees between 7:00 and 8:00, then decreased by 1 degree between 8:00 and 9:00. What integer could you write for an increase of 2 degrees? **+2**; a decrease of 1 degree? **-1**

2 **Comparing and Ordering Integers**

Compare. Write < or >.

12. 9 **>** -22 13. -7 **<** 4 14. -10 **>** -19

Order the integers in each set from least to greatest.

15. 2, -7, 14 -7, 2, 14 16. 25, -9, 4, -21 -21, -9, 4, 25 17. 10, 0, -23, -17, 8 -23, -17, 0, 8, 10

18. The elevation of Turpan Pendi in China is -154 meters. The elevation of the Qattara Depression in Egypt is -133 meters. Compare the two elevations using < or >. **-154 < -133**

READY TO GO ON?
Diagnose and Prescribe



Ready to Go On? Intervention	READY TO GO ON? Intervention	
	Worksheets	Online
<input checked="" type="checkbox"/> Lesson 1	1 Intervention	Activity 1
<input checked="" type="checkbox"/> Lesson 2	2 Intervention	Activity 2
		Diagnose and Prescribe Online

**ARE YOU READY?
Enrichment**

Worksheets

Online

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

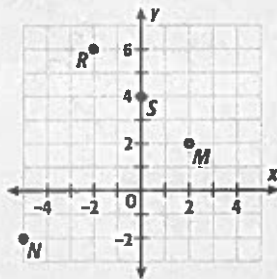
Ready to Go On? Intervention and Enrichment Worksheets

Ready to Go On? Online

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Answers

9-12.



13-14. See Additional Answers.

Quiz for Lessons 3 Through 5

3 The Coordinate Plane

Use the coordinate plane for problems 1-8.
Name the quadrant where each point is located.

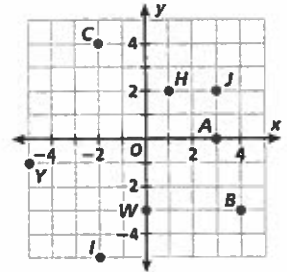
1. A 2. Y III 3. J I 4. C II
no quadrant

Give the coordinates of each point.

5. H (1, 2) 6. I (-2, -5) 7. W (0, -3) 8. B (4, -3)

Graph each point on a coordinate plane.

9. N(-5, -2) 10. S(0, 4) 11. R(-2, 6) 12. M(2, 2)



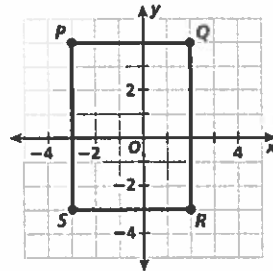
4 Polygons in the Coordinate Plane

Graph the polygons with the given vertices.

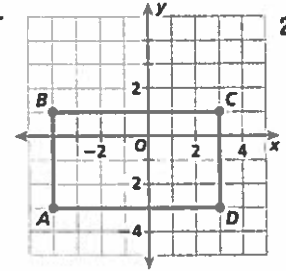
13. triangle: J $(4, 2\frac{1}{2})$, K $(-3\frac{1}{2}, 1)$, L(-1, 5)
14. rectangle: A(-1, 4), B $(4\frac{1}{2}, 4)$, C $(4\frac{1}{2}, 0)$, D(-1, 0)

Find the perimeter of each rectangle.

15. 24 units



16. 22 units

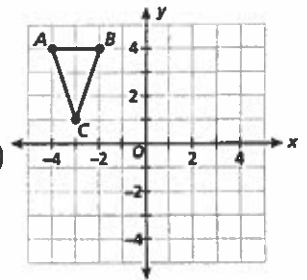


5 Transformations in the Coordinate Plane

Use the coordinate plane for problems 17-19.

Perform the given transformation of triangle ABC.
Give the coordinates of each vertex in the image.

17. translate 6 units down A'(-4, -2), B'(-2, -2), C'(-3, -5)
18. reflect across the y-axis A'(4, 4), B'(2, 4), C'(3, 1)
19. rotate 90° counterclockwise about point B
A'(-2, 2), B'(-2, 4), C'(1, 3)



ARE YOU READY?

Diagnose and Prescribe



Ready to Go On? Intervention	READY TO GO ON? Intervention		Diagnose and Prescribe Online
	Worksheets	Online	
<input checked="" type="checkbox"/> Lesson 3	3 Intervention	Activity 3	
<input checked="" type="checkbox"/> Lesson 4	4 Intervention	Activity 4	
<input checked="" type="checkbox"/> Lesson 5	5 Intervention	Activity 5	

ARE YOU READY? Enrichment

Worksheets

Online

Chapter Test

CHAPTER

9

Name a positive or negative number to represent each situation.

1. 30° below zero -30 2. a bank deposit of \$75 $+75$ 3. a loss of 5 yards -5

Write the absolute value of each integer.

4. $|99|$ 99 5. $|-115|$ 115 6. $|-50|$ 50 7. $|522|$ 522

Compare. Write $<$ or $>$.

8. $-4 \square 4 <$ 9. $2 \square -9 >$ 10. $-10 \square 8 <$ 11. $-2 \square -12 >$

Order each set of integers from least to greatest.

12. 21, -19 , 34 -19 , 21, 34 13. -16 , -2 , 13, 46 14. -10 , 0, 25, -7 , 18
 -16 , -2 , 13, 46 -10 , -7 , 0, 18, 25

Graph each point on a coordinate plane.

15. $A(2, 3)$ 16. $B(3, -2)$ 17. $C(-1, 3)$ 18. $D(-1, 2\frac{1}{2})$ 19. $E(0, 1)$

20. Graph the rectangle with vertices $F(-3, 4)$, $G(3, 4)$, $H(3, -1)$, and $J(-3, -1)$.

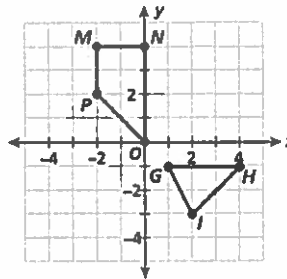
Find the perimeter of each rectangle.

21.  20 units

22.  22 units

Perform the given transformation of each figure. Give the coordinates for each vertex of the image.

23. rotate figure $MNOP$ 90° clockwise about the origin.
 24. translate figure GHI 4 units up
 25. reflect figure $MNOP$ across the y -axis
 26. rotate figure GHI 180° counterclockwise about point I



Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills in the chapter.



Online Edition

Resources



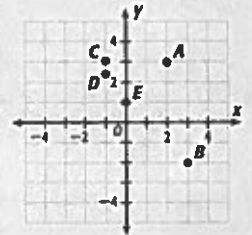
Assessment Resources

- Chapter Tests
- Free Response (Levels A, B, C)
- Multiple Choice (Levels A, B, C)
- Performance Assessment

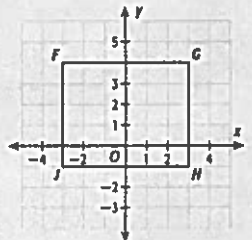
IDEA Works!
Modified Chapter Test

Answers

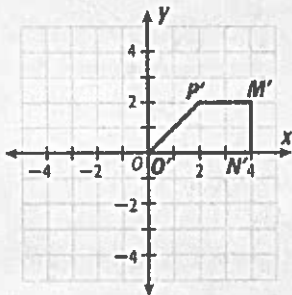
15-19.



20.

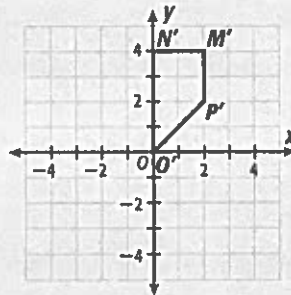


23.



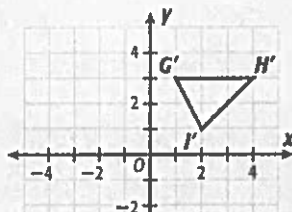
$M'(4, 2)$, $N'(4, 0)$, $O'(0, 0)$, $P'(2, 2)$

25.



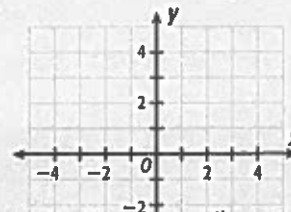
$M'(2, 4)$, $N'(0, 4)$, $O'(0, 0)$, $P'(2, 2)$

24.



$G'(1, 3)$
 $H'(4, 3)$
 $I'(2, 1)$

26.



$G'(3, -5)$
 $H'(0, -5)$
 $I'(2, -3)$

Are You Ready?

Learn It Online
Resources Online

✓ Vocabulary

Choose the best term from the list to complete each sentence.

- ___?___ operations undo each other. **inverse**
- A(n) ___?___ is a mathematical statement that two quantities are equivalent. **equation**
- A(n) ___?___ is a ratio that compares two quantities measured in different units. **rate**
- A(n) ___?___ of numbers is used to locate a point on a coordinate plane. **ordered pair**

equation
ordered pair
expression
rate
inverse

Complete these exercises to review skills you will need for this chapter.

✓ Words for Operations

Write the operation and algebraic expression for each word expression.

- the product of 3 and t **multiplication; $3t$**
- 9 less than z **subtraction; $z - 9$**
- the quotient of d and 17 **division; $d \div 17$ or $\frac{d}{17}$**
- 28 more than g **addition; $g + 28$**
- 101 times k **multiplication; $101k$**
- 43 minus x **subtraction; $43 - x$**

✓ Inverse Operations

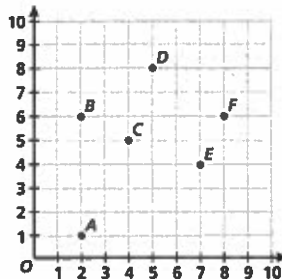
Use the inverse operation to solve each equation.

- $x + 12 = 31$
- $8n = 104$
- $56 + p = 8$
- $t - 14 = 33$ $t = 47$
- $a - 82 = 7$ $a = 89$
- $\frac{s}{6} = 5$ $s = 30$
- $b + 22 = 93$ $b = 71$
- $15 = 3n$ $5 = n$

✓ Graph Ordered Pairs

Use the coordinate plane. Write the ordered pair for each point.

- A (2, 1)
- B (2, 6)
- C (4, 5)
- D (5, 8)
- E (7, 4)
- F (8, 6)



Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Words for Operations

Inverse Operations

Graph Ordered Pairs

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine where intervention is necessary or enrichment is appropriate.

Resources

Are You Ready? Intervention and Enrichment Worksheets

Are You Ready? Online

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NO INTERVENE

ARE YOU READY?

Diagnose and Prescribe

YES ENRICH

✓ Prerequisite Skill	ARE YOU READY? Intervention		Diagnose and Prescribe Online
	Worksheets	Online	
✓ Words for Operations	Skill 53	Activity 53	
✓ Inverse Operations	Skill 57	Activity 57	
✓ Graph Ordered Pairs	Skill 69	Activity 69	

ARE YOU READY? Enrichment

Worksheets

Online

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

Ready to Go On? Intervention and Enrichment Worksheets

Ready to Go On? Online

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Answers

10-12, 17-22. See Additional Answers.

Quiz for Lessons 1 Through 4

1 Tables and Functions

Write an equation for a function that gives the values in each table. Use the equation to find the value of y for each indicated value of x .

1.

x	2	3	4	5	8
y	7	9	11	13	

$y = 2x + 3; 19$

2.

x	1	4	5	6	8
y		18	23	28	38

$y = 5x - 2; 3$

For Problems 3-5, write an equation for the function. Tell what each variable you use represents.

3. The number of plates is 5 less than 3 times the number of cups. $p = 3c - 5; p = \text{plates}, c = \text{cups}$
4. The time Rodney spends running is 10 minutes more than twice the time he spends stretching. $r = 2s + 10; r = \text{time spent running}, s = \text{time spent stretching}$
5. The height of a triangle is twice the length of its base. $h = 2b; h = \text{height}, b = \text{base}$

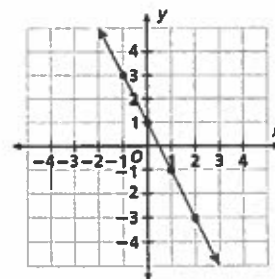
2 Graphing Functions

Use the graph of the linear function at right to find the value of y for each given value of x .

6. $x = 3$ -5 7. $x = 0$ 1
8. $x = -1$ 3 9. $x = -2$ 5

Graph the function described by each equation.

10. $y = x + 5$ 11. $y = 3x + 2$ 12. $y = -2x$



3 Slope and Rate of Change

Tell whether the rates of change are constant or variable.

13.

x	0	1	2	3	4	5
y	4	5	6	7	8	9

constant

14.

x	0	3	4	7	8	11
y	5	6	8	11	15	20

variable

4 Inequalities

Write an inequality for each situation.

15. Gray has at least 25 blue T-shirts. $g \geq 25$ 16. Capacity: not more than 50 people. $r \leq 50$

Graph each inequality.

17. $b > -1$ 18. $5 \leq t$ 19. $-3 \geq x$
20. $5 \geq p$ and $p > -1$ 21. $-8 > g$ or $g \geq -1$ 22. $-4 \leq x < 0$

Ready to Go On?

READY TO GO ON?

Diagnose and Prescribe

NO INTERVENE

YES ENRICH

Ready to Go On? Intervention	READY TO GO ON? Intervention		Diagnose and Prescribe Online
	Worksheets	Online	
<input checked="" type="checkbox"/> Lesson 1	1 Intervention	Activity 1	
<input checked="" type="checkbox"/> Lesson 2	2 Intervention	Activity 2	
<input checked="" type="checkbox"/> Lesson 3	3 Intervention	Activity 3	
<input checked="" type="checkbox"/> Lesson 4	4 Intervention	Activity 4	

ARE YOU READY? Enrichment
 Worksheets
 Online

Chapter Test

CHAPTER

10

Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills in the chapter.

INTERACTIVE Online Edition

Resources

Assessment Resources

- Chapter Tests
- Free Response (Levels A, B, C)
- Multiple Choice (Levels A, B, C)
- Performance Assessment

IDEA Works!
Modified Chapter Test

Write an equation for a function that gives the values in each table. Use the equation to find the value of y for each indicated value of x .

1.

x	2	3	4	5	6	7
y		8	11	14	17	20

$y = 3x - 1; 5$

2.

x	1	2	3	4	5	9
y	8	10	12	14	16	

$y = 2x + 6; 24$

Write an equation for the function. Tell what each variable you use represents.

3. The number of buttons on the jacket is 4 more than the number of zippers.
 $b = z + 4$; $b =$ buttons, $z =$ zippers
4. The length of a parallelogram is 2 in. more than twice the height.
 $l = 2h + 2$; $l =$ length, $h =$ height

Use the given x -values to write solutions of each equation as ordered pairs. Then graph the function described by each equation.

5. $y = 5x - 3$ for $x = 1, 2, 3, 4$
(1, 2), (2, 7), (3, 12), (4, 17)
6. $y = 2x - 3$ for $x = 0, 1, 2, 3$
(0, -3), (1, -1), (2, 1), (3, 3)

Determine whether the rates of change are constant or variable.

7.

x	5	7	9	11
y	1	9	17	25

 constant

8.

x	3	8	11	14
y	-3	-1	-5	5

 variable

9. Emily is participating in a project for P.E. Every day, she walks a certain distance and keeps track of the total distance she has walked for the entire project. The table shows her data for the first five days.

Day	1	2	3	4	5
Total Distance (mi)	2	4	6	8	10

- a. Determine whether the rates of change are constant or variable. **constant**
- b. Graph the data and connect the points with line segments. If the rate of change is constant, find and interpret the slope. **Slope = 2; Emily walked 2 mi each day.**

Write an inequality for each situation.

10. You must be more than 4 ft tall to go on the ride. **height > 4 ft**
11. You cannot go more than 65 miles per hour on Route 18. **speed ≤ 65 mi/h**

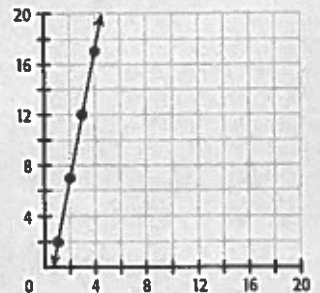
Graph each inequality.

12. $a < -2$ 13. $-5 < d$ and $d \leq 2$ 14. $c > -1$ or $c < -5$ 15. $b \geq 3$

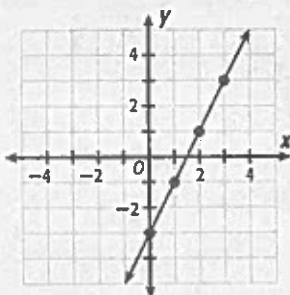
Chapter Test

Answers

5.



6.



9b.

