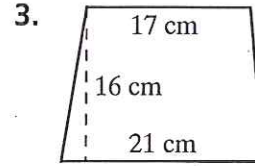
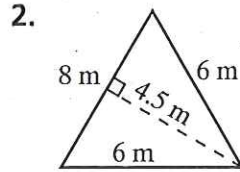
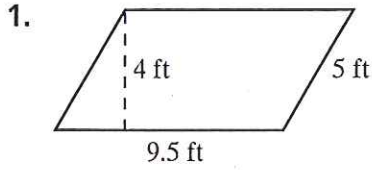


# ENRICHED

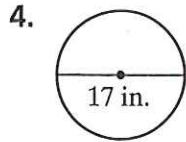
## ✓ Checkpoint Quiz 1

Use with Lesson 10-1 through 10-3.

Find the area of each figure.

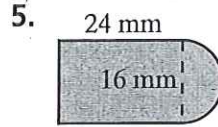


Find the area of each figure. Give an exact answer and an approximate answer to the nearest square unit.



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

$A \approx$  \_\_\_\_\_



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

$A \approx$  \_\_\_\_\_



## ✓ Checkpoint Quiz 2

Use with Lesson 10-4 through 10-8.

Use the space figure on the right for 1 to 3.

1. Name the space figure.

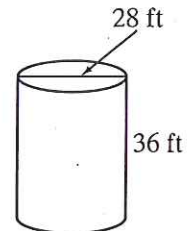
\_\_\_\_\_

2. Find the surface area of the space figure.

\_\_\_\_\_

3. Find the volume of the space figure to the nearest tenth.

\_\_\_\_\_



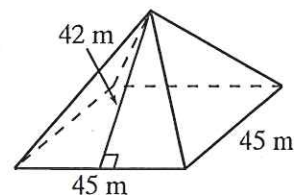
Use the space figure on the right for 4 and 5.

4. Name the space figure.

\_\_\_\_\_

5. Find the surface area of the space figure.

\_\_\_\_\_

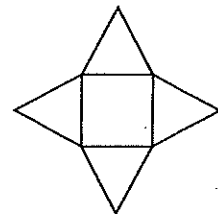


# Cumulative Review

## Chapter 10

Circle the letter of the best answer.

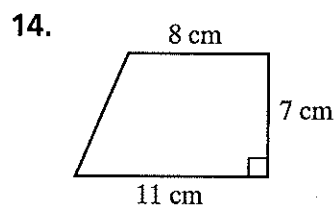
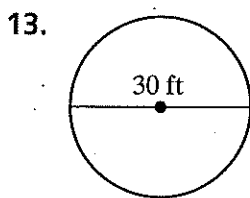
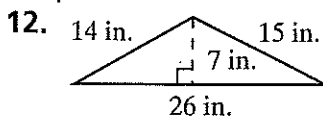
- $3(x + y) - x + y =$   
 A.  $2x + 2y$       B.  $2x + 4y$       C.  $4x + 4y$       D.  $4x + 2y$
- Estimate  $79.783 \times 31.6691$ .  
 F. 240      G. 2,400      H. 24,000      J. 240,000
- In standard notation,  $9.03 \times 10^7$  is  
 A. 9,030,000,000      B. 9,030,000      C. 90,300,000      D. 903,000,000
- Which equation describes *four less than twice a number is negative eight*?  
 F.  $2x - 4 = -8$       G.  $4 - 2x = -8$       H.  $2(x - 4) = -8$       J.  $4x - 2 = -8$
- Which fraction is equal to 0.125?  
 A.  $\frac{1}{6}$       B.  $\frac{1}{7}$       C.  $\frac{1}{12}$       D.  $\frac{1}{8}$
- Which equation has  $y$ -intercept  $-3$ ?  
 F.  $3x - y = 3$       G.  $x - 3y = 3$       H.  $x + 3y = 3$       J.  $3x + 3 = y$
- The measure of the supplement of a  $71^\circ$  angle is  
 A.  $19^\circ$       B.  $17^\circ$       C.  $109^\circ$       D.  $107^\circ$
- Find the circumference of a circle with radius 18 cm.  
 F.  $18\pi$  cm      G.  $324\pi$  cm      H.  $36\pi$  cm      J.  $1,296\pi$  cm
- What space figure can you form from the net at the right?  
 A. square pyramid      B. triangular prism  
 C. triangular pyramid      D. square prism
- Figure  $A$  is a rectangle 8 in. long and 6.5 in. high. Figure  $B$  is a triangle 8 in. long and 6.5 in. high. Which statement is true about the areas of Figures  $A$  and  $B$ ?  
 F.  $A = B$       G.  $A < B$       H.  $A = \frac{1}{2}B$       J.  $A = 2B$
- A rectangle has a perimeter of 110 ft and a length of 23 ft. What is its area?  
 A.  $2,530 \text{ ft}^2$       B.  $32 \text{ ft}^2$       C.  $2,001 \text{ ft}^2$       D.  $736 \text{ ft}^2$



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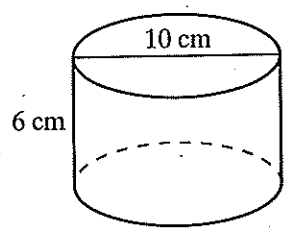
Find the area of each figure to the nearest tenth.



# Cumulative Review (continued)

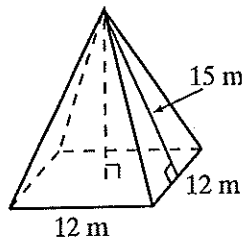
## Chapter 10

Find the surface area and volume of each figure to the nearest tenth.



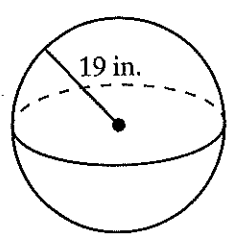
15. S.A.  $\approx$  \_\_\_\_\_

16.  $V \approx$  \_\_\_\_\_



17. S.A. = \_\_\_\_\_

18.  $V =$  \_\_\_\_\_



19. S.A.  $\approx$  \_\_\_\_\_

20.  $V \approx$  \_\_\_\_\_

21. Compare the volumes of the prism and pyramid shown.

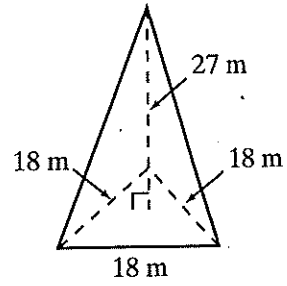
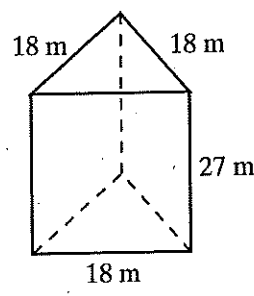
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## ✓ Checkpoint Quiz 1

Use with Lessons 4-1 through 4-4.

Test whether each number is divisible by 2, 3, 5, 9, and 10.

1. 93 \_\_\_\_\_  
 2. 156 \_\_\_\_\_  
 3. 4,230 \_\_\_\_\_

Evaluate each expression.

4.  $a^2$ , for  $a = 7$  \_\_\_\_\_  
 5.  $x^3$ , for  $x = -1$  \_\_\_\_\_  
 6.  $-3h^2$ , for  $h = -5$  \_\_\_\_\_

Write in simplest form.

7.  $\frac{12}{15}$  \_\_\_\_\_  
 8.  $\frac{22}{33}$  \_\_\_\_\_  
 9.  $\frac{9a}{18a}$  \_\_\_\_\_  
 10. Write two pairs of expressions whose GCF is  $3x^2$ .  
 \_\_\_\_\_



## ✓ Checkpoint Quiz 2

Use with Lessons 4-5 through 4-8.

Write three fractions equivalent to each fraction.

1.  $\frac{2}{9}$  \_\_\_\_\_  
 2.  $\frac{8}{10}$  \_\_\_\_\_

Evaluate for  $a = 3$  and  $b = -5$ . Write in simplest form.

3.  $\frac{a}{3b}$  \_\_\_\_\_  
 4.  $\frac{a+b}{2}$  \_\_\_\_\_  
 5.  $\frac{a-b}{24}$  \_\_\_\_\_

Graph the rational numbers below on the same number line.

6.  $-0.7$       7.  $\frac{4}{5}$       8.  $-\frac{3}{10}$
- 

Simplify each expression.

9.  $5^3 \cdot 5^8$  \_\_\_\_\_  
 10.  $(a^3)^4$  \_\_\_\_\_  
 11.  $\frac{x^2y^5}{x^4y^2}$  \_\_\_\_\_

12. If 15 out of 20 students vote to go to the science museum, what fraction of the students want to go to the museum? Write the fraction in simplest form.  
 \_\_\_\_\_

# Cumulative Review

## Chapter 4

Circle the letter of the best answer.

1. Simplify  $-3 + 2 \cdot 4 - 2$ .  
 A. -2                      B. 3                      C. 1                      D. -6
2. What is the opposite of 19?  
 F. -1                      G.  $\frac{1}{19}$                       H. 19                      J. -19
3. Simplify  $5 + (-4) + (-5)$ .  
 A. -4                      B. 14                      C. -14                      D. -10
4. Simplify  $-2y - (3k - 2y) + 3k$ .  
 F. 0                      G.  $4y - 6k$                       H.  $4y$                       J.  $6k - 4y$
5. Which integer is *not* a solution of  $36 + x > 14$ ?  
 A. 5                      B. -20                      C. -22                      D. -16
6. Which number is divisible by both 3 and 2?  
 F. 68,211                      G. 45,305                      H. 28,000                      J. 58,404
7. Which expression is equivalent to  $-6 \cdot m \cdot m \cdot n \cdot 3 \cdot m$ ?  
 A.  $-6m^3 + 3n$                       B.  $-18m^3n$                       C.  $-18mn^3$                       D.  $-18 \cdot 3m \cdot n$
8. Which expression is the GCF of  $12x^3$  and  $32xy$ ?  
 F.  $93x^3y$                       G.  $96x^4y$                       H.  $4x$                       J.  $4xy$
9. Which is equivalent to  $\frac{m^4n^5}{m^6n^2}$ ?  
 A.  $m^2n^3$                       B.  $m^{-2}n^3$                       C.  $m^2n^{-3}$                       D.  $m^{-2}n^{-3}$
10. Evaluate  $\frac{4m - 5}{n}$  for  $m = 5, n = 25$ .  
 F. 5                      G. 3                      H.  $\frac{5}{3}$                       J.  $\frac{3}{5}$
11. Simplify  $x^6 \cdot y^2 \cdot x^3 \cdot y$ .  
 A.  $x^3y$                       B.  $x^2y$                       C.  $x^9y^3$                       D.  $x^{18}y^2$
12. Simplify  $\frac{w^{10}y^{12}z}{w^6z^5}$ .  
 F.  $\frac{w^4y^{12}}{z^4}$                       G.  $\frac{w^{16}y^{12}}{z^6}$                       H.  $w^{16}y^{12}z^6$                       J.  $w^4y^{12}z^4$
13. Simplify  $5^{-2}$ .  
 A. -10                      B. 25                      C. -25                      D.  $\frac{1}{25}$
14. Which is true?  
 F.  $14 > 9 \cdot 3$                       G.  $-26 - 12 = 38$   
 H.  $4[-5 + (-2)] = (-2)6$                       J.  $50 - (-3 \cdot 5) \geq 55$

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# Cumulative Review (continued)

## Chapter 4

15. Which expression is equal to  $x^{14}$ ?

A.  $x^7 + x^7$

B.  $(x^7)^2$

C.  $(x^7)^7$

D.  $x^2 \cdot x^7$

16. Which symbol makes  $(5^3)^4$    $5^3 \cdot 5^4$  true?

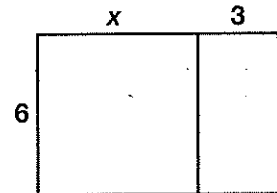
F.  $<$

G.  $>$

H.  $=$

J. none

17. Write a variable expression using parentheses for the total area of the rectangle. Then find the area for  $x = 5$ .



18. The quotient of a number  $n$  and 3.2 is negative twenty-five hundredths. Write and solve an equation to find  $n$ .

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19. List all the factors of 56.

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20. A restaurant offers a breakfast special of one egg, toast, and orange or tomato juice for \$1.79. The egg may be poached, scrambled, or fried. List all the breakfast special combinations that are available. How many are there? Explain how you know you have them all.

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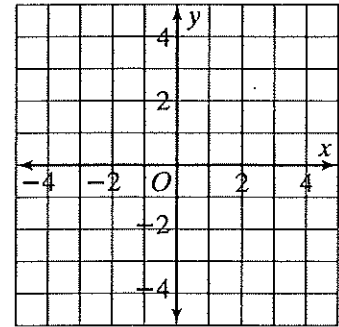
## ✓ Checkpoint Quiz 1

Use with Lessons 8-1 through 8-4.

- Graph  $4x - y = 3$  on a coordinate plane.
- Is  $\{(-3, 6), (-2, 5), (-3, -1), (4, -3)\}$  a function? Explain.

\_\_\_\_\_

\_\_\_\_\_



- Find the slope of the line through the points  $A(8, 7)$  and  $B(5, -2)$ . \_\_\_\_\_

- What is the slope and y-intercept of  $y = -8x + 1$ ?  
 slope: \_\_\_\_\_ y-intercept: \_\_\_\_\_

- Write a rule to describe the cost  $c(p)$  of an item on sale for 25% off as a function of its original price  $p$ .  
 \_\_\_\_\_

- Which rule is the same function as  $9x + y = 4$ ?

A.  $y = 9x - 4$     B.  $y = 9x + 4$     C.  $y = -9x + 4$     D.  $y = -9x - 4$



## ✓ Checkpoint Quiz 2

Use with Lessons 8-5 through 8-7.

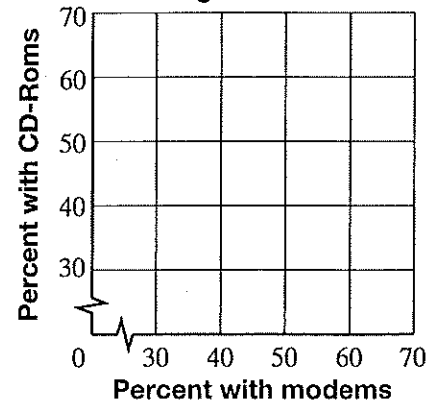
Use the table at the right.

- Make a (modems, CD-Roms) scatter plot.
- Is there a *positive correlation*, a *negative correlation*, or *no correlation* between the percent of junior high schools with modems and the percent with CD-Roms?  
 \_\_\_\_\_

Year	Percent with modems	Percent with CD-Roms
1994	31	31
1995	41	47
1996	47	54

- Draw a trend line on your scatter plot. Use the trend line to predict the percent of schools with CD-Roms when 60% have modems.  
 \_\_\_\_\_

Technology in Junior High Schools



# Cumulative Review

## Chapter 8

Circle the letter of the best answer.

- Tracie is 59 inches tall. How tall is she in feet and inches?  
 A. 4 ft 9 in.      B. 4 ft 11 in.      C. 5 ft 2 in.      D. 5 ft 9 in.
- The probability that Steven gets a hit playing baseball is 1 in 4 times at bat. About how many hits would you expect him to get in 29 times at bat?  
 F. 5 hits      G. 8 hits      H. 6 hits      J. 7 hits
- When a number is multiplied by  $\frac{1}{2}$ , the result is the same as when 5 is subtracted from 3 times the number. Which equation describes the situation?  
 A.  $\frac{1}{2}n = 3(n - 5)$     B.  $\frac{1}{2}n - 5 = 3n$       C.  $\frac{1}{2}n = 3n - 5$       D.  $\frac{1}{2}(3n - 5)$
- $3\frac{1}{2} + 2\frac{1}{3} =$   
 F.  $5\frac{5}{6}$       G.  $5\frac{2}{3}$       H.  $5\frac{1}{6}$       J. 6
- Which ordered pair is *not* a solution of  $6x + 3y = 18$ ?  
 A. (4, -2)      B. (3, -1)      C. (-1, 8)      D. (2, 2)
- Find the slope of the line through (3, -2) and (1, 4).  
 F. -1      G. 3      H. -3      J.  $\frac{1}{3}$
- Which point is a solution of the system  $4x - y = 9$  and  $y = 2x - 7$ ?  
 A. (2, -1)      B. (3, -1)      C. (-1, -8)      D. (1, -5)
- Solve  $-3n + 1 \leq -8$ .  
 F.  $n \leq 3$       G.  $n \leq -3$       H.  $n \geq 3$       J.  $n \geq -3$
- Express the equation  $3x = 2y - 8$  in slope-intercept form.  
 A.  $3x - 2y = -8$     B.  $2y = 3x + 8$       C.  $y = \frac{3}{2}x + 4$       D.  $y = \frac{3}{2}x - 4$
- Find the slope of the line with equation  $3x - 4y = 24$ .  
 F.  $-\frac{4}{3}$       G.  $\frac{3}{4}$       H.  $\frac{4}{3}$       J.  $-\frac{3}{4}$
- Which equation has a solution of 5?  
 A.  $7 - 2x = -3$     B.  $2x - 9 = -1$       C.  $4 - x = 1$       D.  $x - 8 = 3$
- Write a function rule to describe the amount of sales tax  $t(p)$  as a function of the price  $p$  of an item purchased if sales tax is 6%.



# Cumulative Review (continued)

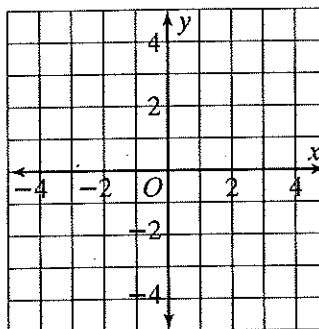
## Chapter 8

Use the equation  $4x - 2y = 8$ , for Exercises 13–14.

13. Complete the table of ordered pairs

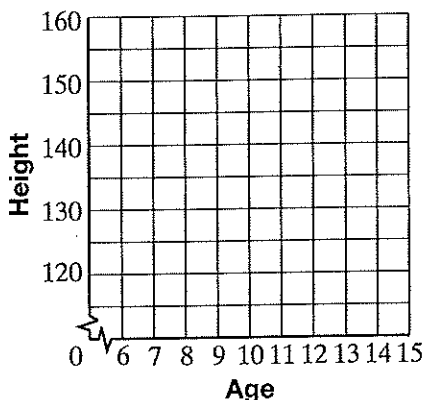
$x$	$y$
0	
2	
3	

14. Graph the equation.



The table has data on Ayla's height at certain ages. Use the data for Exercises 15–17.

15. Use the data to make a (age, height) scatter plot. Draw a trend line.



Age	Height (cm)
6	120
8	132
9	139
11	150

16. At what age was Ayla about 125 centimeters tall?

\_\_\_\_\_

17. About how tall should Ayla be when she is 12 years old?

\_\_\_\_\_

18. Is height a function of age? Explain.

\_\_\_\_\_

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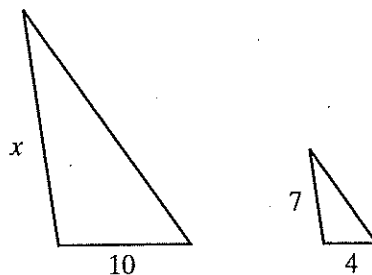
## ✓ Checkpoint Quiz 1

Use with Lessons 6-1 through 6-4.

Find each unit rate.

1. 70 mi in 5 h                      2. \$9.52 for 8 gal                      3. a fall of 192 ft in 6 s

4. The figures at right are similar. Find the missing length.



5. Patrick drank 64 fl oz of water in 3 days. At this rate, how long will it take him to drink a gallon (128 fl oz)?

6. Suppose you spin a spinner that is equally likely to land on any one of the numbers from 1 to 8. Which event has the same probability as  $P(\text{not } 2 \text{ or } 3)$ ?

- A.  $P(2 \text{ or } 3)$                       B.  $P(\text{even})$                       C.  $P(\text{more than } 6)$   
 D.  $P(\text{less than } 7)$                       E. Not here



## ✓ Checkpoint Quiz 2

Use with Lessons 6-5 through 6-9.

Use  $>$ ,  $<$ , or  $=$  to complete each statement.

1.  $2.4\%$    $0.24$                       2.  $\frac{7}{9}$    $77\%$                       3.  $\frac{17}{25}$    $68\%$

Write and solve an equation.

4. Find 26% of 140.                      5. What percent of 700 is 14?                      6. 85% of  $k$  is 68. What is  $k$ ?

\_\_\_\_\_

\_\_\_\_\_

7. A store buys a videogame for \$24. It marks up the game 75%. What is the selling price?

\_\_\_\_\_

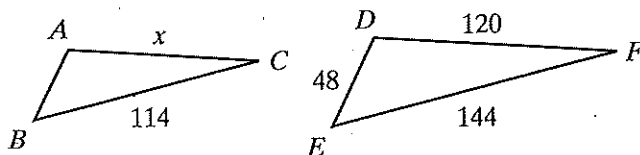
# Cumulative Review

## Chapter 6

Circle the letter of the best answer.

- Evaluate  $5n + 11$  for  $n = -2$ .  
 A. 21                      B. 1                      C. 16                      D. -1
- $-5$  is a solution of which equation?  
 F.  $7x = 35$               G.  $\frac{-40}{x} = -8$               H.  $x - 3 = -8$               J.  $x + 4 = 1$
- Simplify  $(-2)^3 \cdot (-6)^0$ .  
 A. 48                      B. -48                      C. 8                      D. -8
- Solve  $-6n = -31.26$ .  
 F.  $n = -37.26$               G.  $n = -25.26$               H.  $n = -5.21$               J.  $n = 5.21$
- Express  $6.11 \times 10^5$  in standard notation.  
 A. 611,000              B. 61,100,000              C. 610,000              D. 61,100
- Solve  $-4\frac{1}{6}x = 25$ .  
 F.  $x = -6$               G.  $x = 20\frac{5}{6}$               H.  $x = 29\frac{1}{6}$               J.  $x = -104\frac{1}{6}$
- Which number is less than  $-\frac{3}{4}$ ?  
 A.  $-\frac{3}{5}$                       B.  $-\frac{2}{3}$                       C.  $-0.74$                       D.  $-\frac{7}{9}$
- Write 360 mi in 8 h as a unit rate.  
 F. 45 mi/h              G. 50 mi/h              H. 55 mi/h              J. 90 mi/h
- What percent of 50 is 20.7?  
 A. 50%                      B. 24.2%                      C. 41.4%                      D. 20.7%
- Find 70% of 60.  
 F. 420                      G. 4.2                      H. 42                      J. 1.17
- Which has the lowest unit price?  
 A. \$9.52 for 8 gal              B. \$12.84 for 12 gal  
 C. 11 gal for \$11.99              D. 9 gal for \$10.08

12. The figures below are similar.



Write a proportion. Then solve for  $x$ .

\_\_\_\_\_

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

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## Cumulative Review (continued)

### Chapter 6

13. Find the sale price of an item with a regular price of \$29.99 marked 30% off.
- \_\_\_\_\_

Write each number as a percent. Round to the nearest tenth of a percent where necessary.

14. 0.039 \_\_\_\_\_      15.  $\frac{14}{25}$  \_\_\_\_\_      16.  $\frac{8}{33}$  \_\_\_\_\_

Find each probability for one spin of a spinner numbered 1 to 9.

17.  $P(1 \text{ or } 2)$  \_\_\_\_\_      18.  $P(\text{less than } 7)$  \_\_\_\_\_

The scale on a map is 1 in. : 8 mi. Find the actual distance for each map distance.

19. 4.5 in. \_\_\_\_\_      20. 10.75 in. \_\_\_\_\_

Solve each proportion. Where necessary, round to the nearest tenth.

- ✓ 21.  $\frac{6}{10} = \frac{9}{x}$      $x =$  \_\_\_\_\_      ✓ 22.  $\frac{n}{14} = \frac{5}{3}$      $n =$  \_\_\_\_\_

Write each ratio as a fraction in simplest form.

23. 24 : 56 \_\_\_\_\_      24. 40 : 75 \_\_\_\_\_

25. Explain how to find selling price given cost and markup.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## ✓ Checkpoint Quiz 1

Use with Lessons 13-1 through 13-3.

Find the next three terms of the sequence. Then write a rule to describe the sequence.

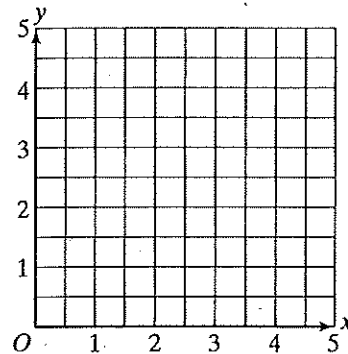
1. 56, 28, 14, 7, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

rule: \_\_\_\_\_

Make a table for integer values of  $x$  from 0 to 4. Then graph the function.

2.  $y = 4(0.5)^x$

$x$	$y = 4(0.5)^x$	$(x, y)$



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## ✓ Checkpoint Quiz 2

Use with Lessons 13-4 through 13-7.

Tell whether each polynomial is a *monomial*, a *binomial*, or a *trinomial*.

1.  $x^2 - xy$

2.  $x^2y$

3.  $x^2 + 3x + y$

\_\_\_\_\_

Evaluate each polynomial for  $x = -2$  and  $y = 4$ .

4.  $4x + 3y$

5.  $5x - x^2$

6.  $3y^2 + 7x - 8$

\_\_\_\_\_

Simplify.

7.  $(7a - 2b) - (3a - 5b)$

8.  $2mn(4m - 3n^2 + n)$

9.  $(n - 3)(n + 7)$

\_\_\_\_\_

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# Cumulative Review

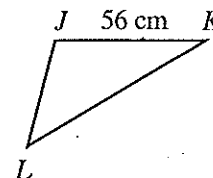
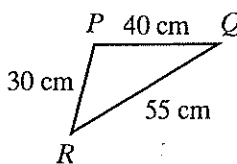
## Chapter 13

Circle the letter of the best answer.

- Write an inequality for *The total, t, is not more than eighteen.*  
 A.  $t \geq 18$       B.  $t \leq 18$       C.  $t > 18$       D.  $t < 18$
- Solve  $k + 3 < -2$ .  
 F.  $k < 5$       G.  $k > -5$       H.  $k < -5$       J.  $k > 5$
- Evaluate  $3x^2(2x + 1)$  for  $x = -3$ .  
 A. 189      B. -189      C. -135      D. 135
- 85% of  $z$  is 170. Find  $z$ .  
 F. 144.5      G. 1,445      H. 200      J. 50

- In the figure at the right,  $\triangle JKL \sim \triangle PQR$ . Find  $KL$ .

- A. 42 cm      B. 77 cm  
 C. 39.3 cm      D. 40.7 cm



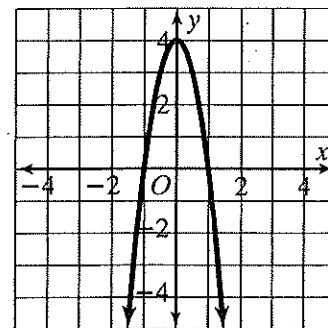
- On a scale drawing of a house, the kitchen is  $4\frac{1}{2}$  in. long. The actual room is 18 ft long. Find the scale.  
 F. 1 in. : 4 ft      G. 1 in. : 2 ft      H. 1 in. : 8 ft      J. 1 in. : 4.5 ft
- Approximate the volume of a sphere with diameter 6 in. Use 3.14 for  $\pi$ .  
 A.  $904.32 \text{ in.}^3$       B.  $452.16 \text{ in.}^3$       C.  $37.68 \text{ in.}^3$       D.  $113.04 \text{ in.}^3$
- $(2z - 3)^2 =$   
 F.  $4z^2 - 12z + 9$       G.  $2z^2 - 6z + 9$       H.  $4z^2 + 12z + 9$       J.  $2z^2 - 12z + 9$
- A rectangle 15 cm wide has perimeter 80 cm. Find the length of the rectangle.  
 A. 25 cm      B. 50 cm      C. 12.5 cm      D. 65 cm

- Match the graph with an equation below.

- F.  $y = -4|x| + 4$       G.  $4|x| - 4$   
 H.  $y = 4x^2 - 4$       J.  $y = -4x^2 + 4$

- Which figure has a volume greater than  $400 \text{ cm}^3$ ?

- A. a cylinder with radius 6 cm and height 4 cm  
 B. a cylinder with radius 4 cm and height 6 cm  
 C. a cone with radius 6 cm and height 6 cm  
 D. a cone with radius 4 cm and height 4 cm



- An item on sale for \$8.75 is 70% of the original price. What was the original price?  
 F. \$12.50      G. \$9.75      H. \$14.25      J. \$6.13

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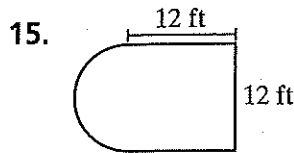
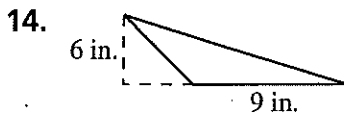
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# Cumulative Review (continued)

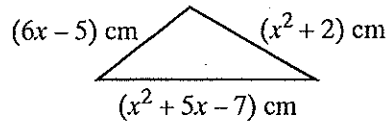
## Chapter 13

13. Find the distance Alisha traveled if she drove  $3\frac{1}{2}$  hours at a rate of 58 mi/h.
- \_\_\_\_\_

Find the area of each figure. Round to the nearest tenth of a unit where necessary.



16. Find the perimeter of the triangle as a polynomial with as few terms as possible.
- \_\_\_\_\_



Simplify.

17.  $(3zy + 2y^2 - 4y) + (-2zy - 2y^2 + 5y)$

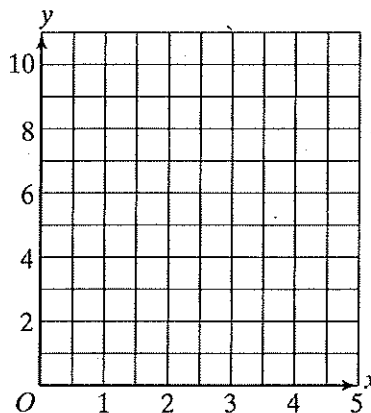
\_\_\_\_\_

18.  $3t(2t^2 + 5t - 6)$

\_\_\_\_\_

19. Complete the table and graph the function:  $y = 10\left(\frac{1}{2}\right)^x$ .

$x$	$y = 10\left(\frac{1}{2}\right)^x$	$(x, y)$
0		
1		
2		
3		
4		



20. Compare the graphs of quadratic and absolute value functions.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

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# Chapter 10 Answers

## ✓ Checkpoint Quiz 1

1.  $38 \text{ ft}^2$  2.  $18 \text{ m}^2$  3.  $304 \text{ cm}^2$  4.  $72.25\pi \text{ in.}^2$ ,  $227 \text{ in.}^2$  5.  $384 + 32\pi \text{ mm}^2$ ,  $484 \text{ mm}^2$

## ✓ Checkpoint Quiz 2

1. cylinder 2.  $4,396 \text{ ft}^3$  3.  $22,155.8 \text{ ft}^3$   
4. square pyramid 5.  $5,805 \text{ m}^2$

## Chapter 10 Cumulative Review

1. B 2. G 3. C 4. F 5. D 6. F 7. C  
8. H 9. A 10. J 11. D 12.  $91 \text{ in.}^2$   
13.  $706.5 \text{ ft}^2$  14.  $66.5 \text{ cm}^2$  15.  $345.4 \text{ cm}^2$   
16.  $471 \text{ cm}^3$  17.  $504 \text{ m}^2$  18.  $659.9 \text{ m}^3$   
19.  $4,534.2 \text{ in.}^2$  20.  $28,716.3 \text{ in.}^3$  21. Since the prism and pyramid have congruent bases and the same heights, the volume of the pyramid is  $\frac{1}{3}$  the volume of the prism.

# Chapter 4 Answers

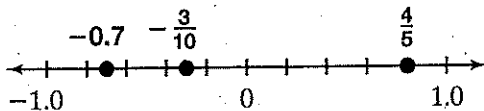
## ✓ Checkpoint Quiz 1

1. 3 only 2. 2 and 3 3. 2, 3, 5, 9, and 10 4. 49  
5. -1 6. -75 7.  $\frac{4}{5}$  8.  $\frac{2}{3}$  9.  $\frac{1}{2}$  10. Answers may vary. Samples are given.  $6x^2$  and  $9x^3$ ;  $9x^2$  and  $3x^3$

## ✓ Checkpoint Quiz 2

1. Answers may vary.  $-\frac{2}{9}$ ,  $\frac{4}{18}$ ,  $-\frac{4}{18}$  2. Answers may vary.  $-\frac{8}{10}$ ,  $\frac{4}{5}$ ,  $-\frac{4}{5}$  3.  $-\frac{1}{5}$  4. -1 5.  $\frac{1}{3}$

6-8.



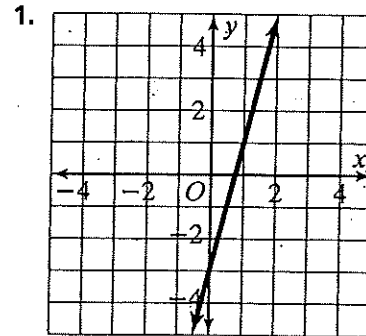
9.  $5^{11}$  10.  $a^{12}$  11.  $\frac{y^3}{x^2}$  12.  $\frac{3}{4}$

## Cumulative Review

1. B 2. J 3. A 4. F 5. C 6. J 7. B  
8. H 9. B 10. J 11. C 12. F 13. D  
14. J 15. B 16. G 17.  $6(x + 3)$ ; 48  
18.  $\frac{n}{3.2} = -0.25$ ,  $n = -0.8$  19. 1, 2, 4, 7, 8, 14, 28, 56 20. poached egg with orange juice and toast, poached egg with tomato juice and toast, scrambled egg with orange juice and toast, scrambled egg with tomato juice and toast, fried egg with orange juice and toast, fried egg with tomato juice and toast; There are 6 combinations. List them in an organized way.

# Chapter 8 Answers

## ✓ Checkpoint Quiz 1

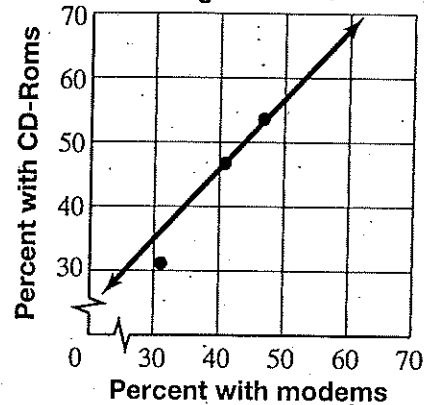


2. No. There are two range values for the domain value -3. 3. 3 4. -8, 1 5.  $c(p) = 0.75p$   
6. C

## ✓ Checkpoint Quiz 2

1.

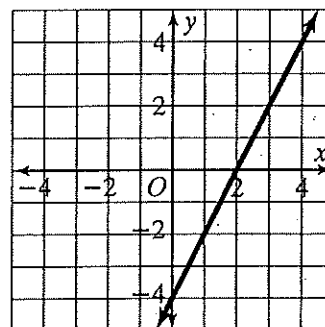
Technology in Junior High Schools



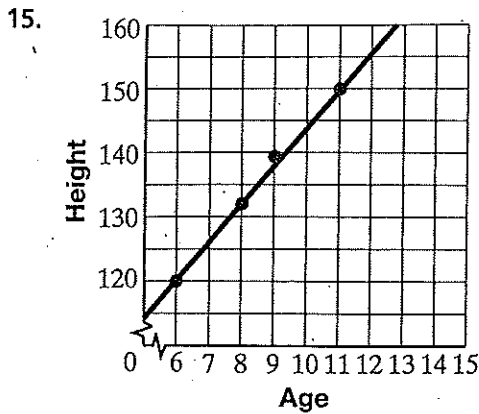
2. positive correlation 3. Sample answer is shown: about 68%

## Chapter 8 Cumulative Review

1. B 2. J 3. C 4. F 5. B 6. H 7. D  
8. H 9. C 10. G 11. A 12.  $t(p) = 0.06p$   
13. -4, 0, 2  
14.







16. 7 years 17. about 156 cm 18. Yes. For each age there is only one height.

## Chapter 6 Answers

### ✓ Checkpoint Quiz 1

1. 14 mi/h 2. \$1.19/gal 3. 32 ft/s 4. 17.5  
5. 6 days 6. D

### ✓ Checkpoint Quiz 2

1. < 2. > 3. = 4.  $0.26 \cdot 140 = n, 36.4$   
5.  $700x = 14, 2\%$  6.  $0.85k = 68, 80$  7. \$42

### Cumulative Review

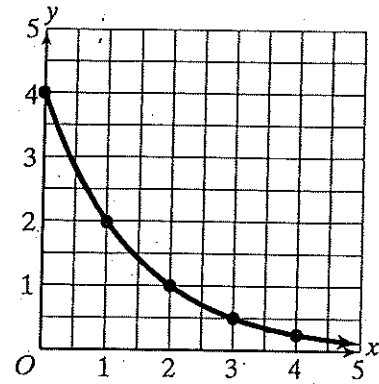
1. B 2. H 3. D 4. J 5. A 6. F 7. D  
8. F 9. C 10. H 11. B 12.  $\frac{x}{120} = \frac{114}{144}$ ,  
 $x = 95$  13. \$20.99 14. 3.9% 15. 56%  
16. 24.2% 17.  $\frac{2}{9}$  18.  $\frac{2}{3}$  19. 36 mi 20. 86 mi  
21. 15 22. 23.3 23.  $\frac{3}{7}$  24.  $\frac{8}{15}$  25. Sample  
answer: Multiply the percent of markup in decimal  
form by the cost. Add the result to the cost.

## Chapter 13 Answers

### ✓ Checkpoint Quiz 1

1.  $\frac{7}{2}, \frac{7}{4}, \frac{7}{8}$ ; Start with 56 and multiply by  $\frac{1}{2}$  repeatedly.  
2.

$x$	$y = 4(0.5)^x$	$(x, y)$
0	$y = 4(0.5)^0 = 4(1) = 4$	(0, 4)
1	$y = 4(0.5)^1 = 4(0.5) = 2$	(1, 2)
2	$y = 4(0.5)^2 = 4(0.25) = 1$	(2, 1)
3	$y = 4(0.5)^3 = 4(0.125) = 0.5$	(3, 0.5)
4	$y = 4(0.5)^4 = 4(0.0625) = 0.25$	(4, 0.25)

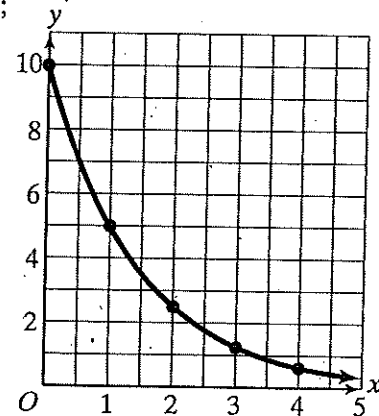


### ✓ Checkpoint Quiz 2

1. binomial 2. monomial 3. trinomial 4. 4  
5. -14 6. 26 7.  $4a + 3b$   
8.  $8m^2n - 6mn^3 + 2mn^2$  9.  $n^2 + 4n - 21$

### Chapter 13 Cumulative Review

1. B 2. H 3. C 4. H 5. B 6. F 7. D  
8. F 9. A 10. J 11. A 12. F 13. 203 mi  
14.  $27 \text{ in.}^2$  15.  $200.5 \text{ ft}^2$   
16.  $(2x^2 + 11x - 10) \text{ cm}$  17.  $zy + y$   
18.  $6t^3 + 15t^2 - 18t$  19.  $y = 10\left(\frac{1}{2}\right)^0 = 10$ ;  
 $(0, 10)$ ;  $y = 10\left(\frac{1}{2}\right)^1 = 5$ ;  $(1, 5)$ ;  $y = 10\left(\frac{1}{2}\right)^2 = 2\frac{1}{2}$ ;  
 $(2, 2\frac{1}{2})$ ;  $y = 10\left(\frac{1}{2}\right)^3 = 1\frac{1}{4}$ ;  $(3, 1\frac{1}{4})$ ;  $y = 10\left(\frac{1}{2}\right)^4 = \frac{5}{8}$ ;  
 $(4, \frac{5}{8})$ ;



20. Sample answer is shown. The graph of a quadratic function is shaped like a U whereas the graph of an absolute value function is shaped like a V.