Name _____ Class _____ Date _____

Cumulative Review

Chapters 1-2

Multiple Choice

For Exercises 1–10, choose the correct letter.

1. Which algebraic expression represents 15 less than the product of 7 and a number?
   A. $15 - 7n$
   B. $7n - 15$
   C. $15(7n)$
   D. $7(n - 15)$

2. Which of the following is the correct simplification of $7 \cdot 4^2 \div 8 - 12$?
   F. -28
   G. $-\frac{17}{2}$
   H. -5
   I. 2

3. What is the value of $\frac{3m^2 - mn}{2mn^2}$ when $m = -1$ and $n = 2$?
   A. $-\frac{5}{8}$
   B. $-\frac{1}{8}$
   C. $\frac{1}{8}$
   D. $\frac{5}{8}$

4. What is the solution of $-6x + 15 = -3$?
   F. -3
   G. -2
   H. 3
   I. 6

5. What is the solution of $4x - 6 = -6x - 4$?
   A. $-\frac{3}{2}$
   B. -1
   C. $\frac{1}{5}$
   D. 1

6. What is the solution of $\frac{3}{5} = \frac{x}{15}$?
   F. 1
   G. 6
   H. 9
   I. 25

7. A scale drawing of a building has the scale 0.5 in. : 6 ft. A wall is 30 ft long. How long will the wall be on the drawing?
   A. 1.5 in.
   B. 2.5 in.
   C. 6 in.
   D. 360 in.

8. What is the simplified form of the expression $\sqrt{225}$?
   F. -25
   G. 15
   H. 20
   I. does not simplify

9. Which property is illustrated by $45 + 19 = 19 + 45$?
   A. Commutative Property of Addition
   B. Identity Property of Addition
   C. Associative Property of Addition
   D. Zero Property of Addition

10. What percent of 86 is 50 to the nearest whole percent?
    F. 43%
    G. 58%
    H. 59%
    I. 172%

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Name _____ Class _____ Date _____

Cumulative Review (continued)

Chapters 1-2

11. A store's cost for a stereo was \$27. The markup was 75%. A customer purchased it on sale at 40% off the marked up price. What was the purchase price of the stereo?

12. Evaluate each expression for $x = 3$ and $y = 2$.

a. $-4x + 3y$

b. $\frac{x^2 - y}{4x}$

13. Find the percent of decrease for each situation.

a. \$250 is discounted to \$212.50

b. \$40 is discounted to \$32

14. The school choir has 84 members. The ratio of girls to boys in the choir is 3 : 4. How many members are girls?

Find each answer.

15. Solve: $-2(3x + 2) = 2x + 6$

16. Simplify: $-\sqrt{169}$

17. Solve: $\frac{3}{4} = \frac{8}{x - 1}$

18. Simplify: $14 + 2 \times 8 - 5^2 + 3^2$

19. Solve: $6n - 7 = 35$

20. Solve: $\frac{x - 1}{2} = \frac{x + 3}{-1}$

21. The scale of a map is 0.25 cm : 15 mi. Determine the distance between two cities that are 6.8 cm apart on the map.

22. The price of the car was marked as \$14,000. The end of the month sale has lowered the price to \$12,500. What is the percent decrease to the nearest percent?

23. Four times the sum of a number and -3 is 4 more than twice the number. Write and solve an equation to find the number.

24. Jeremy is putting together a model rocket. The scale is 1 cm : 50 ft. If the height of the actual rocket is 210 feet, how tall is the model?

25. Writing Describe four different subsets of real numbers. Explain the differences between the various subsets. Give several examples of each subset.

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