Name _____ Class _____ Date _____

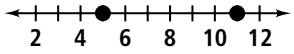
Cumulative Review

Chapters 1–3

Multiple Choice

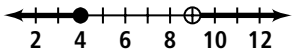
For Exercises 1–9, choose the correct letter.

1. Which of the following can be represented by this graph?



A. $5 < b < 11$ **B.** $11 \geq b \geq 5$ **C.** $|8 - b| = 8$ **D.** $|b - 8| = 3$

2. Which inequality can be represented by this graph?

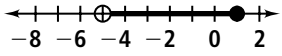


F. $9 \leq b \leq 4$ **G.** $b \geq 9$ or $b > 4$ **H.** $b \leq 4$ or $b > 9$ **I.** $b < 4$ or $b > 9$

3. If $7x + 3 = 24$, what is the value of $5 - 4x$?

A. -23 **B.** -7 **C.** 1 **D.** 17

4. Which of the following sentences is represented by this graph?



F. The value of t is greater than -5 or less than 1.
G. The value of t is between -5 and 1.
H. The value of t is greater than -5 and less than 1.
I. The value of t is less than or equal to 1 and greater than -5.

5. In which quadrant would the point $(-2, 4)$ be located?

A. I **B.** II **C.** III **D.** IV

6. Which is not a subset of the set $\{1, 2, 3, 5\}$?

F. $\{1\}$ **G.** $\{1, 3, 5\}$ **H.** $\emptyset$ **I.** $\{0\}$

7. What is the solution of $\frac{3}{2.5} = \frac{d}{75}$?

A. 90 **B.** 62.5 **C.** 74.5 **D.** 225

8. What is the simplified form of $-3(x + 4)$?

F. $-3x + 12$ **G.** $-3x - 12$ **H.** $-3x + 4$ **I.** $-3x + 1$

9. What is the simplified form of $5 - 4y + 2x - 3y - 2 + 5x$?

A. $3 - 7y + 7x$ **B.** $3 + 7y + 7x$ **C.** $7 + 7y + 7x$ **D.** $3 - y + 7x$

Name _____ Class _____ Date _____

Cumulative Review (continued)

Chapters 1–3

10. Evaluate each expression for $x = -7$.

a. $|x - 3|$ **b.** $|x + 3|$

11. Complete the table.

	$n = 2$	$n = 3$	$n = 4$
$5n + 6$			
$2n + 15$			

12. Evaluate $b^2 - 4ac$ for $a = -1$, $b = -5$, and $c = 2$.

13. Simplify $4 - 3(2^2 - 5)$.

14. Javier is on a diet. He is supposed to eat at least 1500 but not more than 1800 calories per day. Before his last meal of the day, he had consumed 1150 calories. According to Javier's diet plan, what number of calories may he consume at his last meal of the day?

15. Find three consecutive even integers whose sum is 66.

16. Translate the following sentence into an equation and then solve.
Four less than five times a number is 21.

17. What is the intersection of the sets $A = \{2, 4, 6, 8, 10\}$ and $B = \{1, 2, 3, 4, 5\}$?

Solve each equation.

18. $n + 4 = 6$ **19.** $3t + 3 = -12$ **20.** $2(3d + 1) = 20$

21. $2p = -8$ **22.** $|4a - 2| = 10$ **23.** $5k + 6 = 5(k + 1)$

24. Solve the inequality $|9 - 3g| \leq 12$.

25. Solve and graph $15c - 4 \leq 12c + 5$ on the number line.

26. Solve the equation $3a + 4b = \frac{1 - 2c}{d}$ for c.