NAME _____ DATE _____ PERIOD _____

# 1 Chapter 1 Test, Form 2D

SCORE _____

1. Evaluate $\frac{2x^2 + 5}{2y^2 - 2}$ if $x = 2.5$ and $y = -1.5$. 1. _____

2. Evaluate $\frac{5a - b^2}{3c}$ if $a = 4$, $b = 3$, and $c = 2$. 2. _____

**For Questions 3 and 4, evaluate each expression if $a = 3.5$ and $b = -10$.**

3. $-|b + 2a|$ 3. _____

4. $|-3 - a| - \left|\frac{b}{2}\right|$ 4. _____

5. Use $I = prt$, the formula for simple interest over $t$ years, to find $I$ when $p = \$2000$, $r = 6\%$, and $t = 18$ months. 5. _____

**Name the sets of numbers to which each number belongs.**

6. $\sqrt{16}$ 6. _____

7. $-2.5$ 7. _____

8. $\frac{7}{9}$ 8. _____

**For Questions 9 and 10, name the property illustrated by each equation.**

9. $3ab + (-3ab) = 0$ 9. _____

10. $1xyz = xyz$ 10. _____

11. Simplify $\frac{1}{5}(10x - 15) + 4(2x - 5)$. 11. _____

12. Write an algebraic expression to represent the verbal expression *five times the sum of seven and a number.* 12. _____

**Solve each equation.**

13. $5n - 3 = 12$ 13. _____

14. $7x - 10 = 4x + 11$ 14. _____

15. $|6w + 3| = 9$ 15. _____

16. $|x - 4| - 5 = -2$ 16. _____

Assessment

NAME _____ DATE _____ PERIOD _____

# 1 Chapter 1 Test, Form 2D *(continued)*

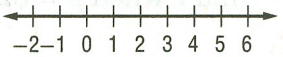
**Define a variable, write an equation, and solve the problem.**

**17.** The sum of 3 times a number and 1 is 25. Find the number. **17.** _____

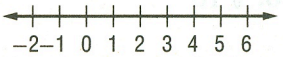
**18.** The length of a rectangular garden is 7 feet longer than its width. The perimeter of the garden is 38 feet. Find the width and length of the garden. **18.** _____

**For Questions 19–24, solve each inequality. Graph the solution set on a number line.**

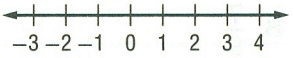
**19.** $10t - 14 < 6$ **19.** _____



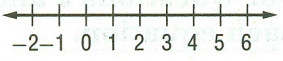

**20.** $3(4x - 2) \geq 7x + 19$ **20.** _____



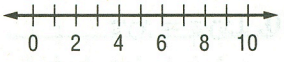

**21.** $-7 < 9x + 2 < 11$ **21.** _____



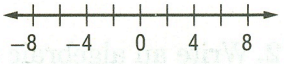

**22.** $5n + 7 < 2$ or $17 - 2n \leq 11$ **22.** _____




**23.** $|x - 5| > 3$ **23.** _____




**24.** $|2x + 1| \leq 9$ **24.** _____




**25.** Define a variable and write an inequality. Then solve the resulting inequality. The 25 coins in Danielle's piggy bank have a value of at least \$1.44. The bank contains only nickels and dimes. What is the fewest number of dimes that could be in the bank? **25.** _____

**Bonus** Find the value of $k$ so that the equation below has the solution set $\{-3\}$.

$3(2x - 1) = x(2 - k)$ **B:** _____