Chapter 2 Mastery Test B

Directions Circle the letter of the correct answer.

1. Simplify $(2r)^2$.

A $2^2 + r^2$ **C** $4r^2$

B $4r$ **D** 16

2. Find the equivalent of $a(b - c)$.

A $(a)(b) - (c)$ **C** $(a)(b)(c)$

B $(ab)(-c)$ **D** $(a)(b) - (a)(c)$

3. Solve for m. $8 + m = 0$

A -8 **C** 8

B 0 **D** $\frac{1}{8}$

4. Simplify $2 + (-5)^2 - 10$.

A -33 **C** 2

B 17 **D** 15

5. Find the reciprocal of $\frac{x}{4}$.

A $\frac{4}{x}$ **C** $\frac{x}{1}$

B $\frac{1}{x}$ **D** $\frac{1}{4}$

Directions Each expression is an example of a property. Choose the letter of the most correct response. A response may be used more than once.

6. $(3 + 6) + 2 = 3 + (6 + 2)$ _____

7. $9 + (-4) = -4 + (9)$ _____

8. $10\ (2 \cdot 5) = (10 \cdot 2)\ 5$ _____

9. $7m + 3n = 3n + 7m$ _____

10. $[(19 \cdot 21)45] = [19(21 \cdot 45)]$ _____

a. commutative property of addition

b. associative property of multiplication

c. commutative property of multiplication

d. distributive property of multiplication

e. associative property of addition

Chapter 2 Mastery Test B, continued

Directions Find each product.

11. $3(4 \cdot 6)$ _____

12. $8[-n + (-p)]$ _____

Directions Factor each expression.

13. $3g + 3h$ _____

14. $c^2m - d^3m$ _____

Directions What missing number or variable makes each statement true?

15. $0 = 6 - \blacksquare$ _____

16. $(-4)(\blacksquare) = -4$ _____

17. $(1)(x) = \blacksquare$ _____

Directions Write the reciprocal of each term.

18. -7 _____

19. a^3 _____

20. $\frac{y}{2}$ _____

Directions Simplify.

21. $(-4q)^3$ _____

22. $(80b)^2$ _____

Directions Simplify each expression using the order of operations.

23. $10a - 4a(3)$ _____

24. $3(r - 7r) + r$ _____

25. $(150y) + (350y)(2)$ _____