NAME _____ PERIOD _____ SCORE _____

Unit 2 Practice Test

1. Use the Distributive Property to write $-4(7 - 1)$ as an equivalent expression. What is the value of the expression?

A. 4(6); 24
B. 4(7) + 1; 29
C. (7 + 1)4; 32
D. −4(7) + −4(−1); −24

2. Add $(-2x + 4) + (4x + 6)$.

F. $2x + 10$ **G.** $6x + 10$ **H.** $2x - 2$ **I.** $6x - 2$

3. Subtract $(-x - 3) - (5x + 2)$.

A. $4x - 1$ **B.** $-6x - 5$ **C.** $4x - 5$ **D.** $-6x + 1$

4. What is the value of $-2(x + 5)$?

F. $x + 10$ **G.** $x - 10$ **H.** $-2x - 2$ **I.** $-2x - 10$

5. What is the value of $11 + 3(9 - 6) - 4$?

A. 12 **B.** 16 **C.** 18 **D.** 22

6. Simplify $2x + 1 - x + 2$.

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

7. What is the value of $6a + 2b$ if $a = 1$ and $b = 2$?

A. 7 **B.** 8 **C.** 10 **D.** 14

8. What is the value of the expression $f^2 + 5$ if $f = 3$?

A. 8 **B.** 2 **C.** 6 **D.** 14

9. What is the value of $9x - 4y$ if $x = 3$ and $y = 2$?

F. 12 **G.** 19 **H.** 9^3 **I.** 27

10. Which property of multiplication is shown by the equation $14 \cdot y \cdot 1 = 14y$?

A. Associative
B. Distributive
C. Commutative
D. Identity

11. Which expression is equivalent to $-3(x + 10)$?

F. $3x + 30$ **G.** $-3x + 10$ **H.** $-3x - 30$ **I.** $3x - 30$

12. What is $7y + 15 - 7y - 8$?

A. 3 **B.** 5 **C.** 6 **D.** 7

13. Simplify $x + 6 - 3x - 8$.

F. $-2x - 2$ **G.** $-2x - 14$ **H.** $-3x - 14$ **I.** $-3x - 2$

14. Factor $25x + 45$ using the GCF.

A. $x(25 + 45)$ **B.** $5(5x + 9)$ **C.** $25(x + 2)$ **D.** $5(5x + 45)$

15. Add $(12x + 5) + (3x - 7)$.

F. $9x - 12$ **G.** $9x - 2$ **H.** $15x - 12$ **I.** $15x - 2$

16. Subtract $(3x + 5) - (x + 2)$.

A. $2x + 7$ **B.** $2x + 3$ **C.** $-2x - 7$ **D.** $4x + 7$

17. In the expression $10a + 4$, identify the coefficient.

F. 10 **G.** a **H.** 4 **I.** 0

18. What is the value of $12d - 7c$ if $d = 2$ and $c = 3$?

F. 3 **G.** 7 **H.** 11 **I.** 13

19. Evaluate $\frac{4r}{s}$ if $r = 9$ and $s = 2$.

20. Name the multiplication property shown the equation $12 \cdot m = m \cdot 12$.

21. The area of a gymnasium is $(27x + 18)$ square units. Factor $27x + 18$ to find possible dimensions of the gymnasium.

22. Melanie spent four hours babysitting. She charges \$16 upfront and then an additional charge per hour. The total amount she earned can be represented by the expression $\$4x + \$16$. What expression represents the amount she earns each hour?

23. What is the value of the expression $3(2 - 7)$?

A. -27 **B.** -15 **C.** 15 **D.** 27