Chapter 5, Test Form A **Name:**

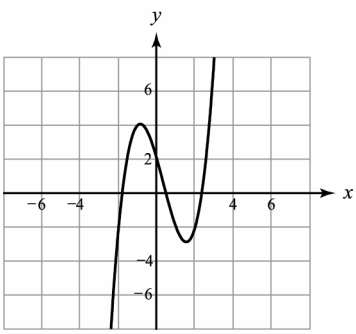
In #1 and #2, simplify by combining like terms.

1. $2x^2y - 4x^2 + 8x^2 - 5x^2y$ 1. _____

2. $\left(2x^3 - 4x^2 + x - 1\right) - \left(-3x^3 + 7x + 5\right)$ 2. _____

3. Evaluate $f(x) = -2x^2 + 5x - 7$ at $x = -2$. 3. _____

4. Use the graph to evaluate $f(0)$. 4. _____



In #5 through #8, multiply and simplify.

5. $\frac{1}{4}x^2(12x - 8)$ 5. _____

6. $3ab^2 \cdot 4a^2b^3$ 6. _____

7. $(2 - 3x)(2 + 3x)$ 7. _____

8. $(x - 4)\left(x^2 + 4x + 16\right)$ 8. _____

In #9 through #13, factor completely.

9. $6x^2 - 7x - 3$ 9. _____

10. $3x^3 - 12x$ 10. _____

11. $2x^3 - x^2 + 10x - 5$ 11. _____

12. $25x^2 - 20x + 4$ 12. _____

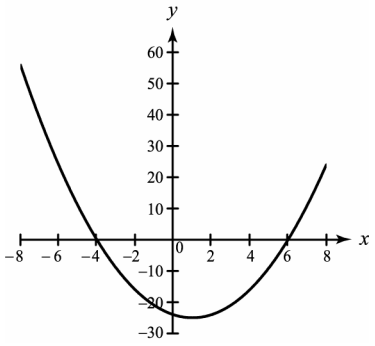
13. $64x^3 + 27$ 13. _____

14. Identify the degree and leading coefficient of the polynomial $-2x^3 + 5x^2 + 3$. 14. _____

_____

15. Multiply $\left(3s^2 - 2t^3\right)^2$. 15. _____

16. Use the graph to factor $x^2 - 2x - 24$. 16. _____



17. Write a polynomial that represents the product of two consecutive odd integers, where x is the smaller integer. 17. _____

In #18 through #20, use factoring to solve the polynomial equation.

18. $3x^2 = 9x$ 18. _____

19. $2x^2 = 5x - 3$ 19. _____

20. $3a^4 - 12a^2 = 0$ 20. _____