

Math 2 – Honors  
Unit 2 – Quadratic Functions  
Unit 2 Test Review

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

➤ Perform the indicated operation:

1. $3(-5x^2 + 2x + 1) + (16x^2 + 5x) + 4(6 - x)$	2. $(3x^2 - 5x + 1) - (2x^2 + 6x - 4) - (-6x^2 - 2)$
3. $3x^4(4x^4 - x^3 + 2x)$	4. $(2x - 5)(x + 3)$
5. $(4x - 3y)^2$	6. $(x + 9)(x - 9)$
7. $(2x + 3)(4x^2 - 6x + 9)$	8. $(3x - 5)(2x + 1)(x - 3)$

➤ Factor Completely:

9. $36x^4 - 24x^3$	10. $2x^3 + 5x^2 - 18x - 45$
11. $25x^2 - 49$	12. $x^2 - 4x - 12$
13. $2x^2y - 4xy - 30y$	14. $3x^2 - 13x - 10$
15. $25x^2 + 64$	16. $3x^4 - 3$

➤ Solve by Factoring:

17. $(3x + 7)(2x - 5) = 0$	18. $2x^2 - 5x = 12$
19. $x^2 + 2x - 8 = 0$	20. $2x + 35 = x^2$
21. $4x^3 - 25x = 0$	22. $4x^2 - x = 0$

➤ Write the equation of the parabola in  $x$  – *intercept form*:

23. $x$ – intercepts: $(-3, 0)$ & $(-1, 0)$ and vertex $(-2, -1)$	24. $x$ – intercepts: $(3, 0)$ & $(2, 0)$ and a point $(5, -18)$
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➤ Write the equations from #23-24 in *vertex form*:

25. _____	26. _____
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➤ Complete the missing information:

27.  $y = (x + 4)^2 - 4$

Vertex \_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_

x – intercepts: \_\_\_\_\_

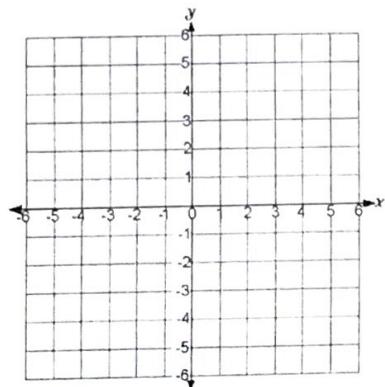
y – intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

**X – intercept** form of the equation:

$y =$  \_\_\_\_\_



28.  $y = -2(x + 3)(x + 1)$

Vertex \_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_

x – intercepts: \_\_\_\_\_

y – intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

**Vertex** form of the equation:

$y =$  \_\_\_\_\_

