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

➢ 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 $\boldsymbol{x-intercept\ form}$:

23. $x-intercepts$: $(-3,0)$ & $(-1,0)$ $and\ vertex\ (-2,-1)$	24. $x-intercepts$: $(3,0)$ & $(2,0)$ $and\ a\ point\ (5,-18)$

➢ Write the equations from #23-24 in $\boldsymbol{vertex\ form}$:

25.	26.

- Complete the missing information:

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

Vertex_____

Axis of Symmetry:_____

x – intercepts:_____

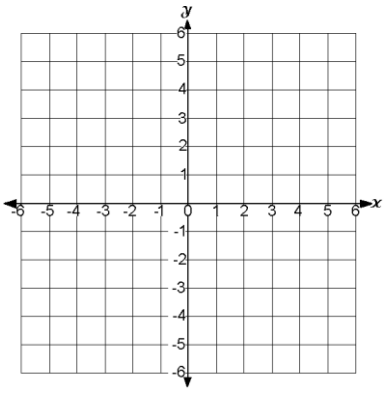
y – intercept:_____

Domain: _____

Range: _____

$\boldsymbol{X - intercept}$ form of the equation:

$y =$ _____



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

Vertex_____

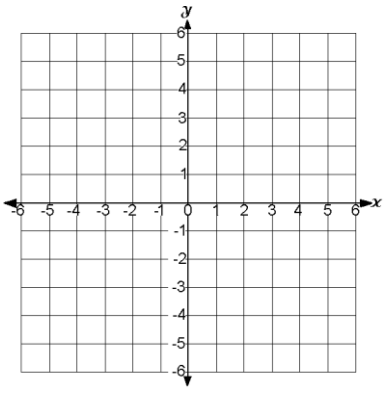
Axis of Symmetry:_____

x – intercepts:_____

y – intercept:_____

Domain: _____

Range: _____

$\boldsymbol{Vertex}$ form of the equation:

$y =$ _____