

Name: _____
Algebra 2

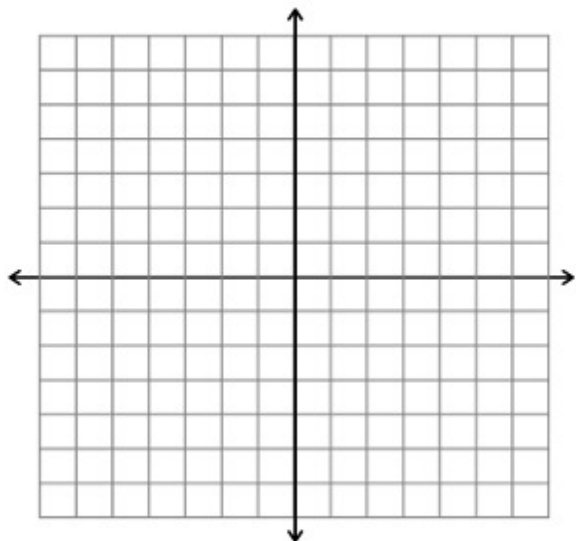
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Graphing Quadratic Functions Practice

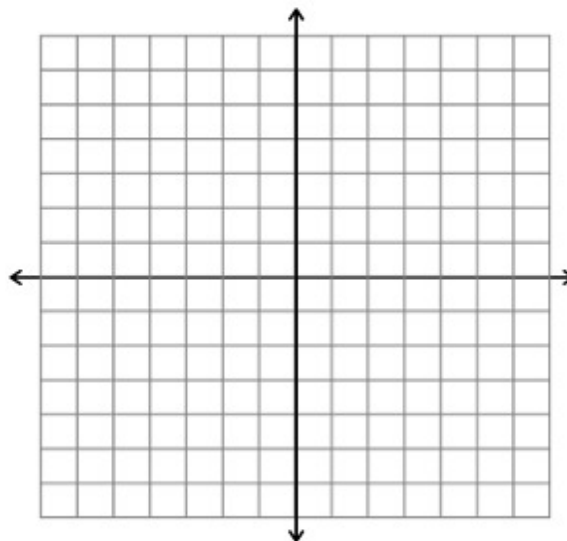
Graphing Quadratic Functions in Vertex Form

Graph the function. Label the vertex and axis of symmetry.

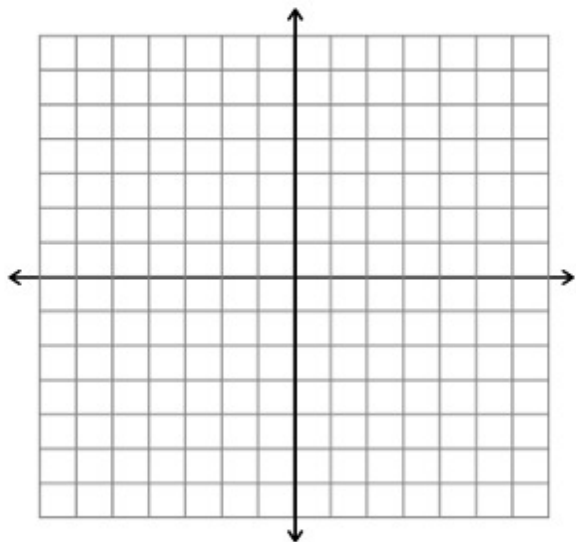
1. $f(x) = -4(x - 2)^2 + 4$



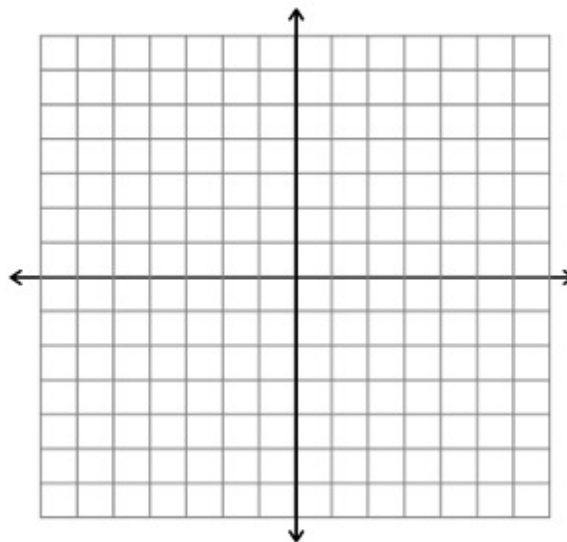
2. $g(x) = 2(x + 1)^2 - 3$



3. $h(x) = -\frac{1}{4}(x + 2)^2 + 1$



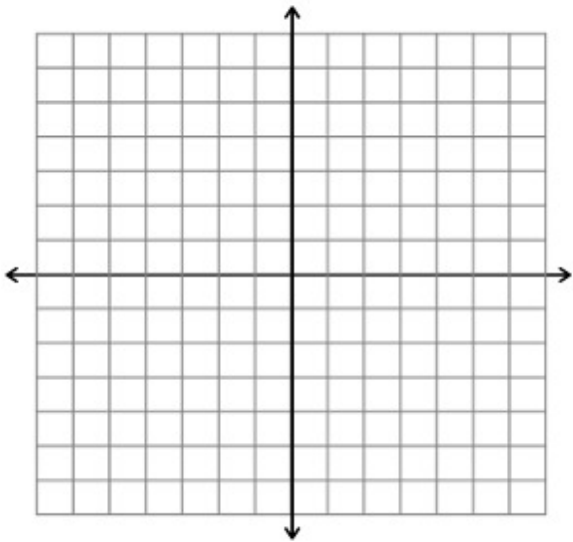
4. $y = \frac{1}{2}(x - 3)^2 + 2$



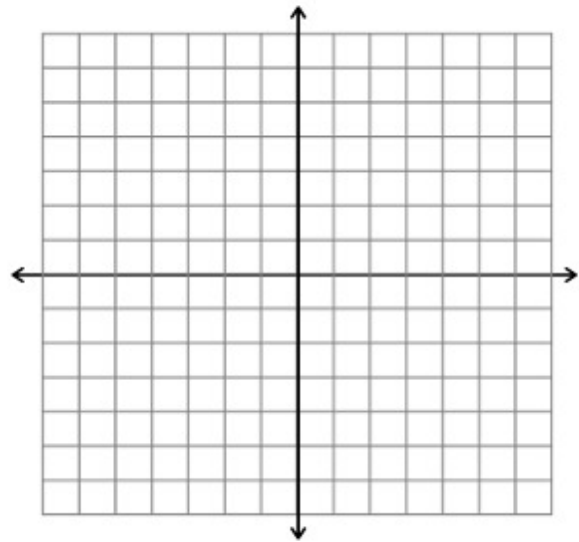
Graphing Quadratic Functions in Standard Form

Graph the function. Label the vertex and axis of symmetry.

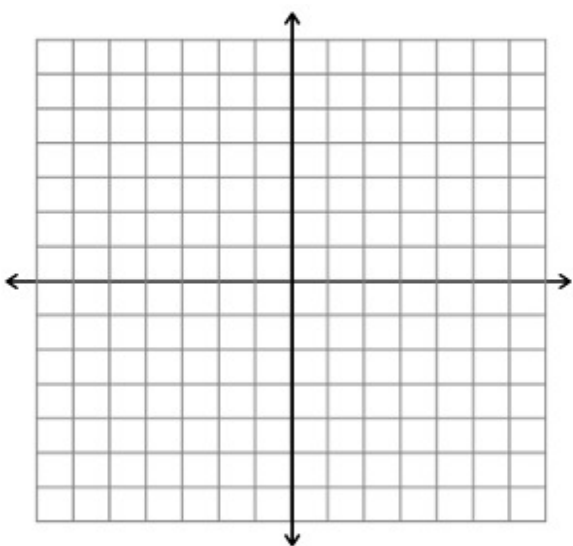
5. $y = x^2 + 2x + 1$



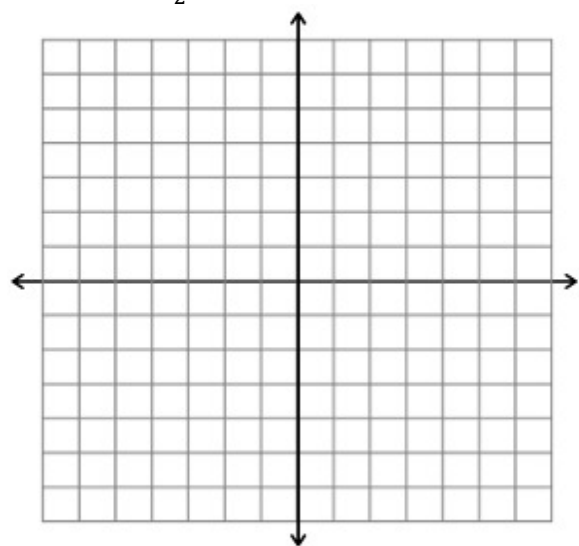
6. $f(x) = 3x^2 - 6x + 4$



7. $g(x) = -4x^2 + 8x + 2$



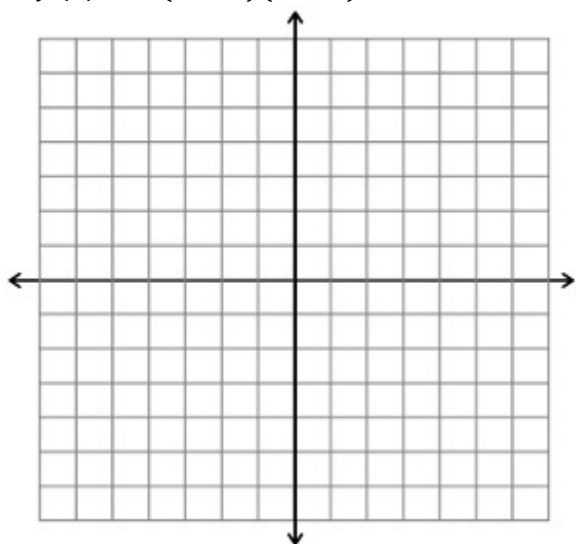
8. $h(x) = -\frac{5}{2}x^2 - 4x - 1$



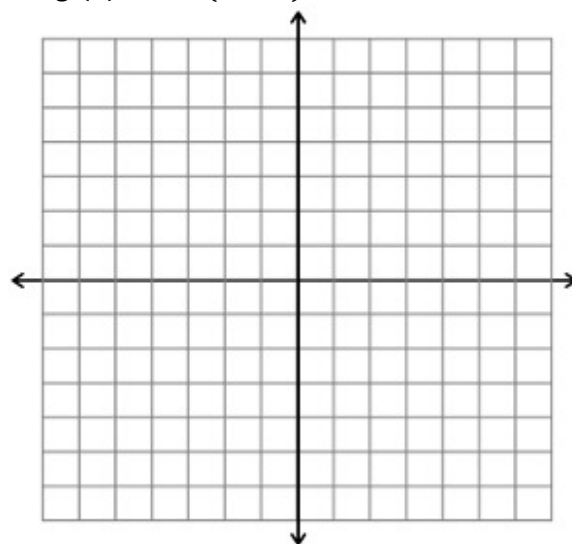
Graphing Quadratic Functions in Intercept Form

Graph the function. Label the x -intercept(s), vertex, and axis of symmetry.

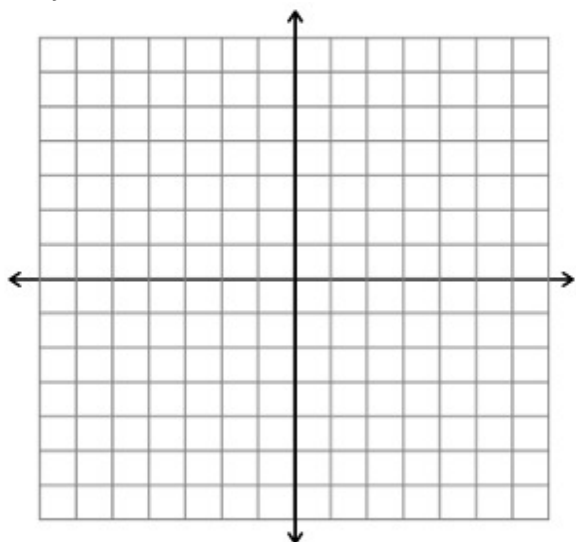
9. $f(x) = 2(x - 5)(x - 1)$



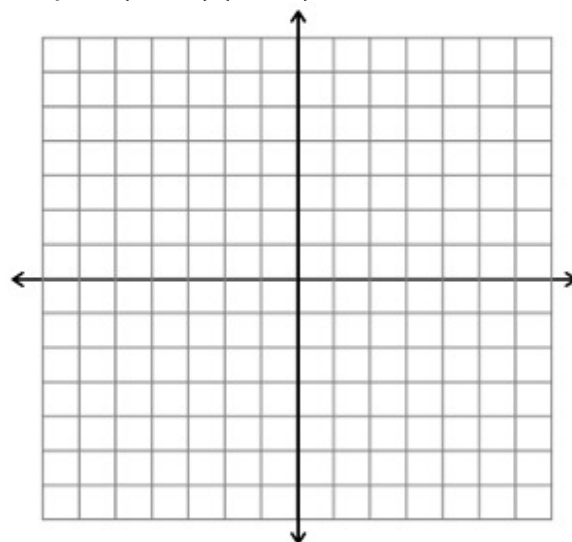
10. $g(x) = -x(x + 6)$



11. $y = -2(x - 3)^2$



12. $y = (x + 1)(x - 3)$



Maximum and Minimum Values of Quadratic Functions

Find the minimum or maximum value of the function. Describe the domain and range of the function, and where the function is increasing and decreasing.

13. $y = -x^2 - 4x - 2$

14. $g(x) = -3x^2 - 6x + 5$

15. $f(x) = -2x^2 + 8x + 7$

16. $h(x) = 3x^2 + 18x - 5$

17. $k(x) = \frac{1}{4}x^2 - 3x + 2$

18. $y = \frac{3}{2}x^2 + 6x + 4$