

Tell whether the quadratic function is in *standard form* or *vertex form*.

1. $y = x^2 - 2x - 35$	2. $y = 3(x - 1)^2 + 3$	3. $y = -\frac{2}{3}(x - 4)^2 + 7$	4. $y = -2x^2 + 16x - 24$
------------------------	-------------------------	------------------------------------	---------------------------

Identify the vertex of the quadratic function in VERTEX form.

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

9. $y = 2(x + 1)^2 - 3$	10. $y = (x + 4)^2$	11. $y = \frac{1}{2}(x - 5)^2 + 1$	12. $y = -(x + 6)^2 + 10$
-------------------------	---------------------	------------------------------------	---------------------------

Identify the vertex of the quadratic function in STANDARD form. Remember to use $x = \frac{-b}{2a}$

13. $y = 2x^2 - 16x + 31$	14. $y = -x^2 - 4x + 1$	15. $y = 3x^2 - 6x + 4$
---------------------------	-------------------------	-------------------------

Given a quadratic equation in vertex form, find the vertex, axis of symmetry, whether the graph opens up or down, the maximum or minimum, and the y-intercept. Graph it!

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

Vertex: _____

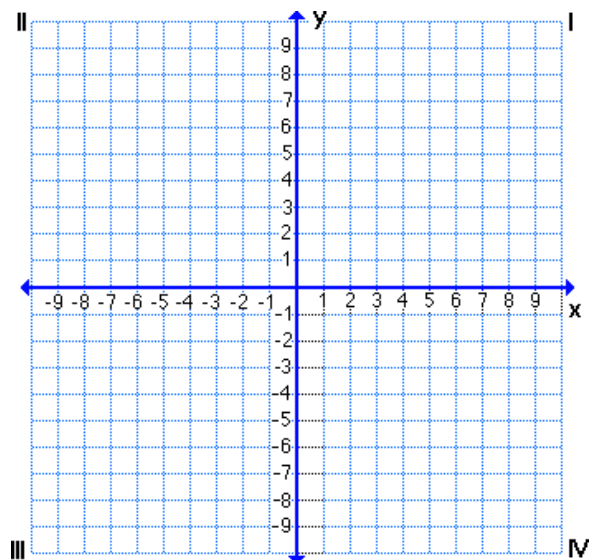
Axis of symmetry: _____

Opens: up down

Maximum Minimum

Max/Min Value: _____

y-intercept: _____



17. $y = (x - 3)^2 + 2$

Vertex: _____

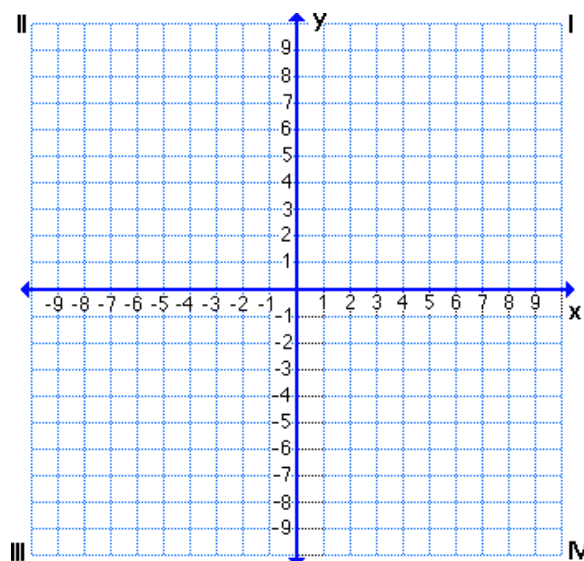
Axis of symmetry: _____

Opens: up down

Maximum Minimum

Max/Min Value: _____

y-intercept: _____



18. $y = -\frac{1}{5}(x - 5)^2 - 2$

Vertex: _____

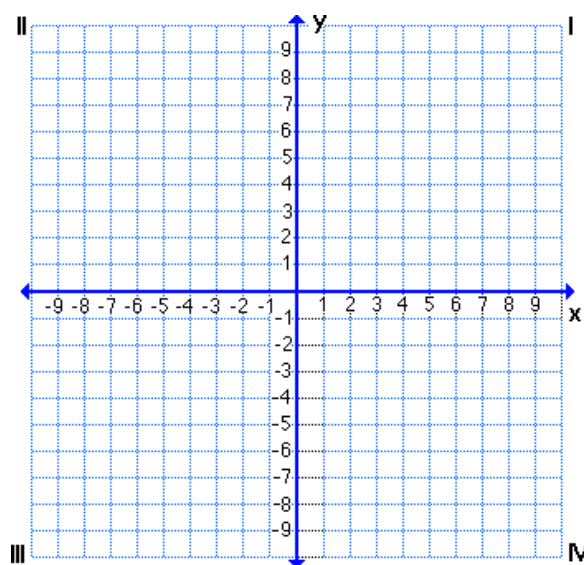
Axis of symmetry: _____

Opens: up down

Maximum Minimum

Max/Min Value: _____

y-intercept: _____



19. $y = (x - 2)^2$

Vertex: _____

Axis of symmetry: _____

Opens: up down

Maximum Minimum

Max/Min Value: _____

y-intercept: _____

