

Name: _____

Period: _____

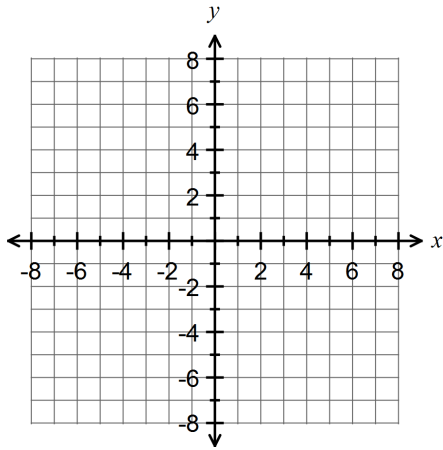
7.2 Graphing Quadratic Functions: Vertex and Axis of Symmetry

State the vertex and graph each parabola. Clearly mark the vertex and four other points on the graph.

1. $y = x^2 + 2x - 1$ Vertex: _____

Form of the equation: _____

$a = \underline{\quad}$ $b = \underline{\quad}$

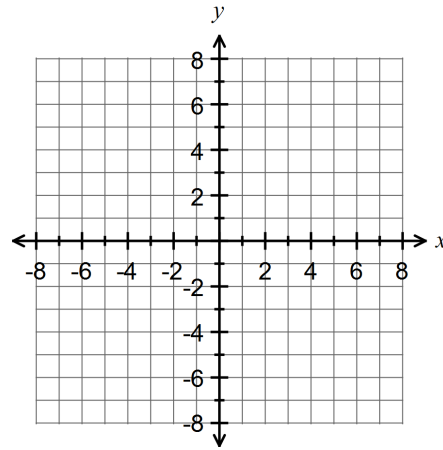


	x	y
Vertex		

2. $y = -(x - 2)^2 + 4$ Vertex: _____

Form of the equation: _____

$a = \underline{\quad}$ $h = \underline{\quad}$ $k = \underline{\quad}$

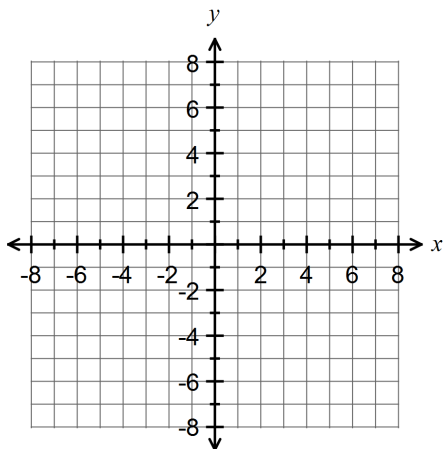


	x	y
Vertex		

3. $f(x) = -x^2 - 4x$ Vertex: _____

Form of the equation: _____

$a = \underline{\quad}$ $b = \underline{\quad}$

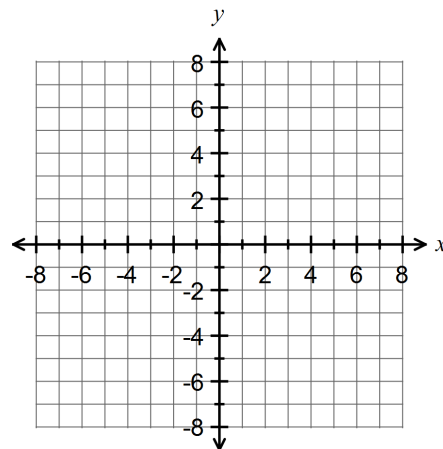


	x	y
Vertex		

4. $y = 3(x - 1)^2 - 8$ Vertex: _____

Form of the equation: _____

$a = \underline{\quad}$ $h = \underline{\quad}$ $k = \underline{\quad}$

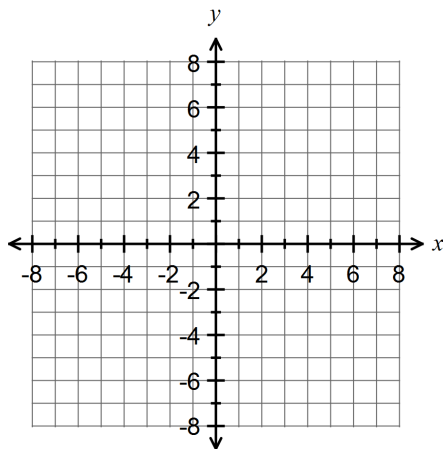


	x	y
Vertex		

5. $f(x) = x^2 - 8x + 15$ Vertex: _____

Form of the equation: _____

$a =$ _____ $b =$ _____

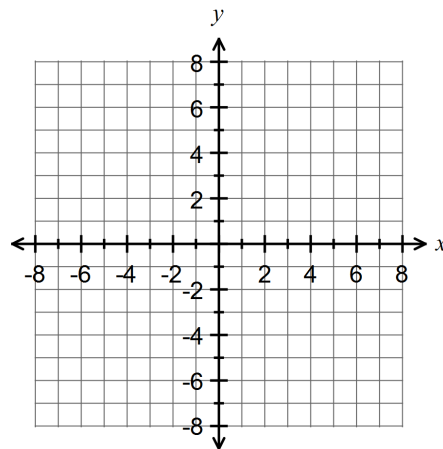


	x	y
Vertex		

6. $y = \frac{1}{2}(x+3)^2 - 5$ Vertex: _____

Form of the equation: _____

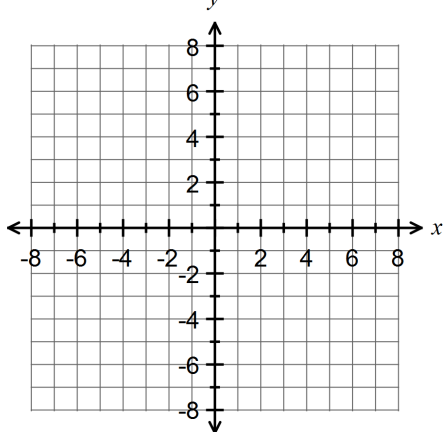
$a =$ _____ $h =$ _____ $k =$ _____



	x	y
Vertex		

Fill in the requested information for each function. Draw the graph. You need AT LEAST 5 POINTS!

7. $y = (x+3)^2 + 1$



Vertex: _____

Axis of Symmetry: _____

Direction of Opening: _____

Is the vertex a maximum or a minimum? _____

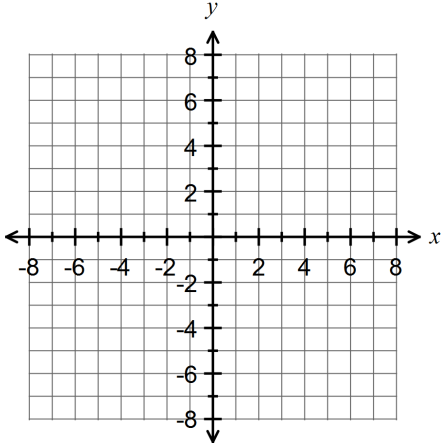
Maximum or minimum value: _____

y-intercept: _____

Domain: _____

Range: _____

8. $y = 2x^2 - 5$



Vertex: _____

Axis of Symmetry: _____

Direction of Opening: _____

Is the vertex a maximum or a minimum? _____

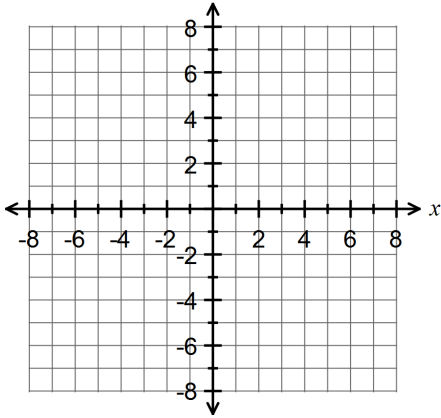
Maximum or minimum value: _____

y-intercept: _____

Domain: _____

Range: _____

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



Vertex: _____

Axis of Symmetry: _____

Direction of Opening: _____

Is the vertex a maximum or a minimum? _____

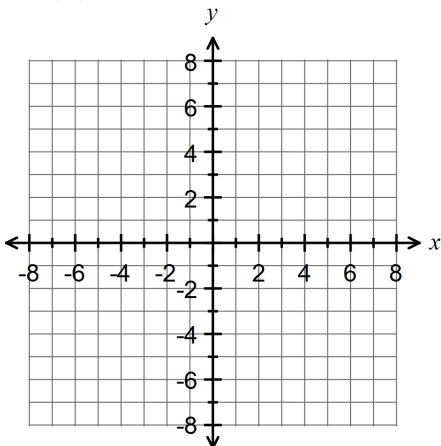
Maximum or minimum value: _____

y-intercept: _____

Domain: _____

Range: _____

10. $f(x) = -x^2 + 6x - 7$



Vertex: _____

Axis of Symmetry: _____

Direction of Opening: _____

Is the vertex a maximum or a minimum? _____

Maximum or minimum value: _____

y-intercept: _____

Domain: _____

Range: _____