Graphing Quadratic Functions

Name _____

Date _____ Period _____

A quadratic function is a function that can be written in the form

$$y = ax^2 + bx + c$$

where $a \neq 0$

Given the quadratic functions in standard form, determine the values of a, b, and c.

$y = x^2 - 4x - 2$ $\qquad$ $y = -x^2 + 2x + 5$ $\qquad$ $y = 2x^2 - 8$

A quadratic function is a function that can be written in the form

$$y = ax^2 + bx + c$$

$a =$ $\quad$ $b =$ $\quad$ $c =$

Vertex

$x = \frac{-b}{2a}$

then plug x into equation to find y value.

Axis of Symmetry

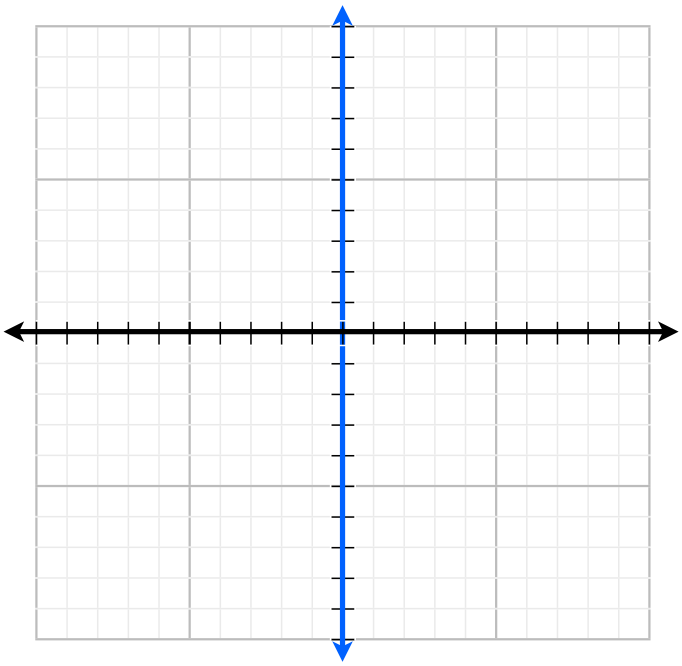
the line $x = \frac{-b}{2a}$

y-intercept

$(0, c)$

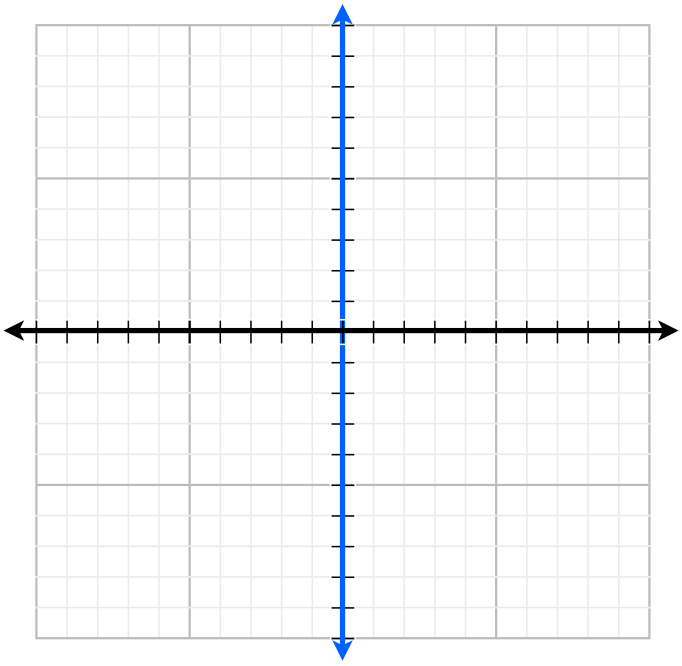
Graph the following quadratic functions

$y = x^2 + 6x + 5$



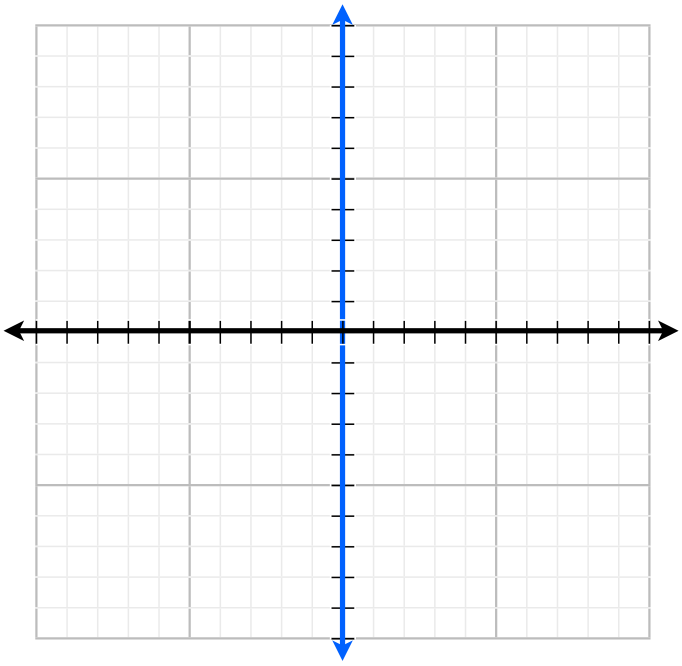
Graph the following quadratic functions

$y = -x^2 - 4x - 8$



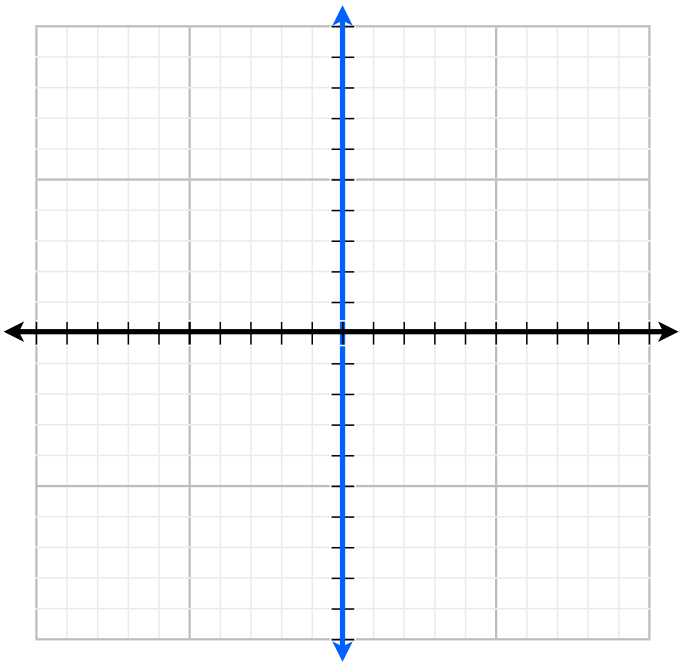
Graph the following quadratic functions

$y = 2x^2 - 4x$



Graph the following quadratic functions

$y = -\frac{1}{2}x^2 + 4x - 6$



A quadratic function is a function that can be written in the form

$$y = ax^2 + bx + c$$

$a =$ $b =$ $c =$

Vertex	Axis of Symmetry	y-intercept
$x = \frac{-b}{2a}$	the line $x = \frac{-b}{2a}$	$(0, c)$
then plug x into equation to find y value.		