Graphing Quadratic Functions in Standard Form

Name _____

Date _____ Period _____

Standard Form

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

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

if $a > 0$; opens up	Vertex	Axis of Symmetry	y-intercept
if $a < 0$; opens down	$x = \frac{-b}{2a}$	the line $x = \frac{-b}{2a}$	$(0,c)$

then plug x into equation to find y value.

Standard Form

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

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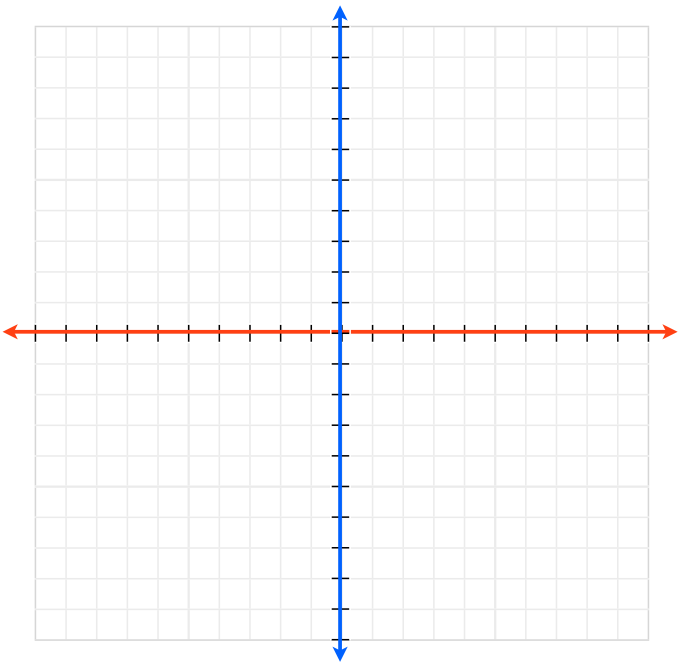
Given the quadratic function in standard form, label a, b, and c.

$y = 2x^2 + 3x + 7$ $y = -x^2 - 4$ $y = -4x^2 - x$ $y = \frac{1}{2}x^2 - 4x + 5$

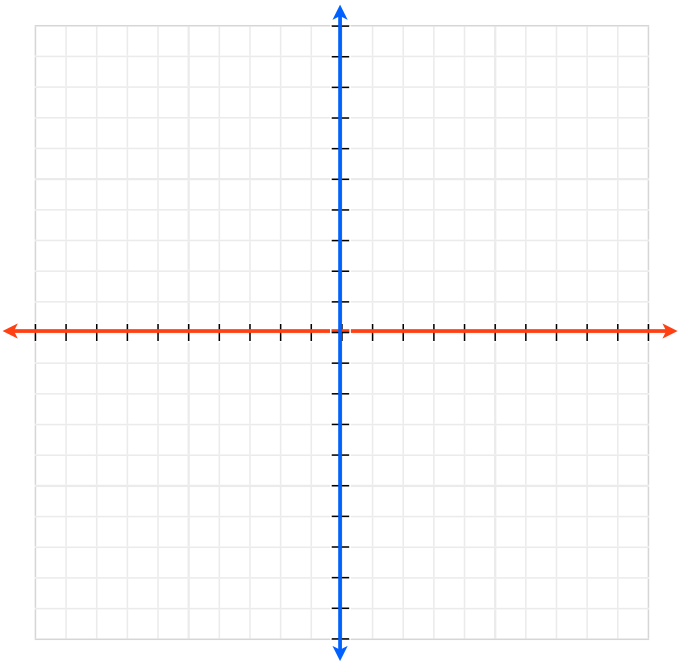
Graph the following quadratic function

$$y = x^2 - 4x + 1$$



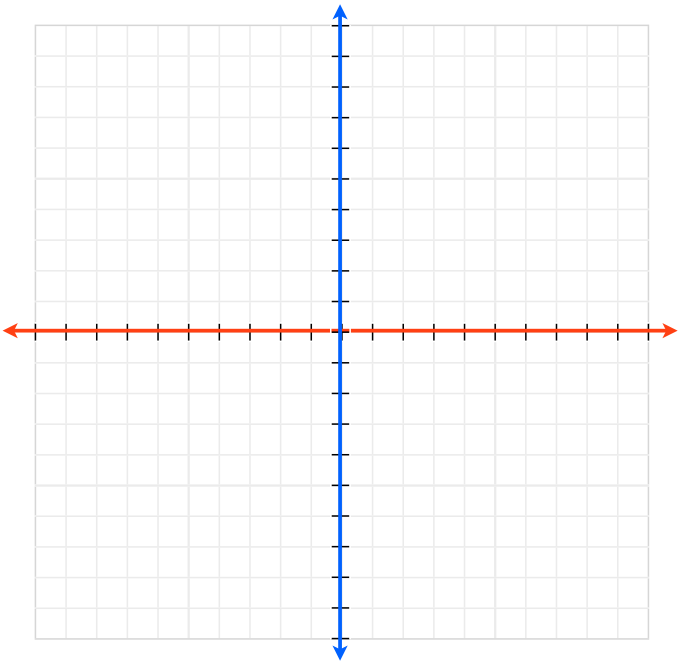
Graph the following quadratic function

$$y = -x^2 - 2x + 7$$



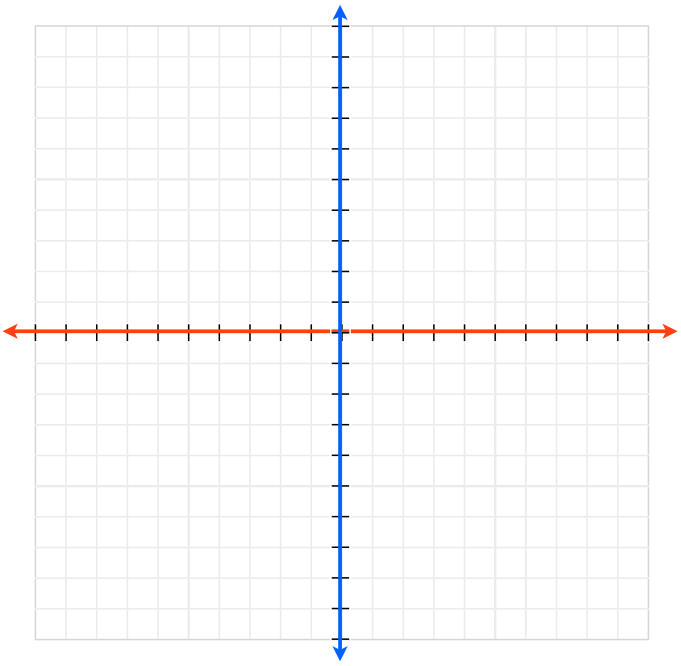
Graph the following quadratic function

$$y = \frac{1}{2}x^2 + 2x + 8$$



Graph the following quadratic function

$$y = -2x^2 - 8x - 6$$



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then plug x into
equation to find y value.