

Daily Agenda

Learning Target: I can graph quadratic functions using the vertex, y-intercept, and symmetric point.

<p>Homework</p> <p>3.1 Formative</p>	<p>Assessments</p> <p>3.1 to 3.3 Quiz 10/12 - No Calc Chapter Test 10/24 - Calc and No Calc</p>
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Anything is possible. Anything can be.
-Shel Silverstein

Nov 15-8:24 PM

3.1 Graphing Quadratic Functions

quadratic function
 $y = ax^2 + bx + c$, where a, b, c are coefficients

graph of a quadratic function

- parabola
- vertex is lowest or highest point
- symmetrical
- axis of symmetry through vertex

Sep 15-10:27 PM

3.1 Graphing Quadratic Functions

Vertex of Parabola
 the x-coordinate is:

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

substitute x to solve for y
 if a is positive, opens up

$y = 3x^2 - 12x + 7$

$x = \frac{12}{2 \cdot 3} = 2$

$y = 3(2)^2 - 12(2) + 7 = -5$

$(2, -5)$ vertex

Sep 15-10:40 PM

Find the vertex, y-intercept, symmetric point, and sketch.

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

$x = \frac{6}{2 \cdot 1} = 3$

$y = 3^2 - 6(3) + 8 = -1$

$(3, -1)$

Oct 1-7:26 AM

Find the vertex, y-intercept, symmetric point, and sketch.

$y = x^2 - 4x + 7$

$x = \frac{4}{2} = 2$

$y = 2^2 - 4(2) + 7 = 3$

vertex: $(2, 3)$

y intercept = $(0, 7)$

Oct 1-7:26 AM

Find the vertex, y-intercept, symmetric point, and sketch.

$y = -2x^2 - 12x - 13$

$x = \frac{-b}{2a} = \frac{-(-12)}{2(-2)} = \frac{12}{-4} = -3$

$y = -2(-3)^2 - 12(-3) - 13 = -18 + 36 - 13 = 5$

$(-3, 5)$

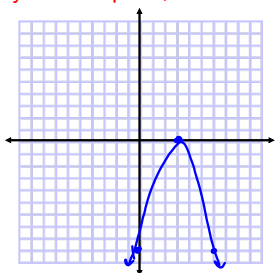
Oct 1-7:26 AM

Find the vertex, y-intercept, symmetric point, and sketch.

$$y = -x^2 + 6x - 9$$

$$x = \frac{-b}{2(-1)} = 3$$

$(3, 0)$ vertex



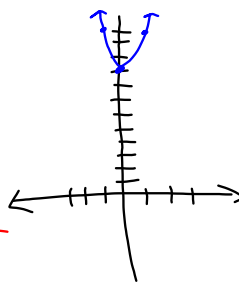
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$$y = 3x^2 + 9$$

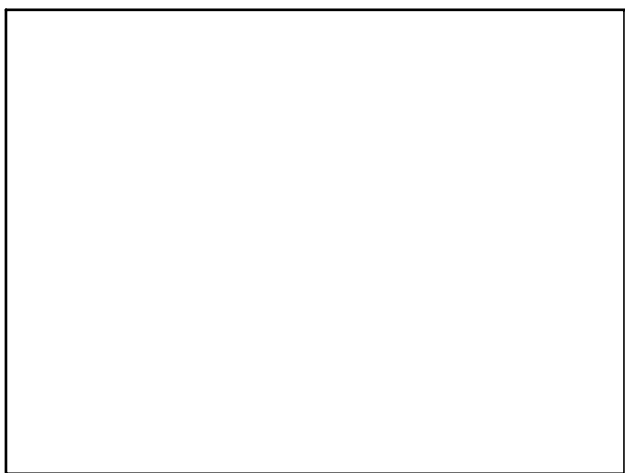
$$x = \frac{0}{2 \cdot 3} = 0$$

$(0, 9)$ vertex

x	y
1	12
-1	12



Oct 3-11:37 AM



Oct 3-11:34 AM