ALGEBRA II
Chapter 4 section 1
Graph Quadratic Functions in Standard Form
pg. 236

FOCUS:
How are the values of a, b, and c in the equation $y = ax^2 + bx + c$ related to the graph of a quadratic function?

VOCAB:
Quadratic function:

Parabola:

Vertex:

Axis of symmetry:

Minimum value:

Maximum value:

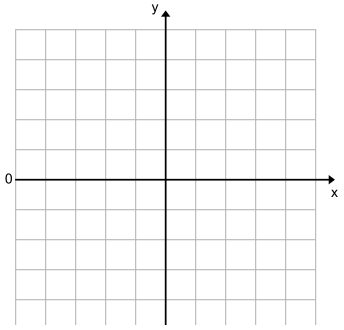
WARM – UP:

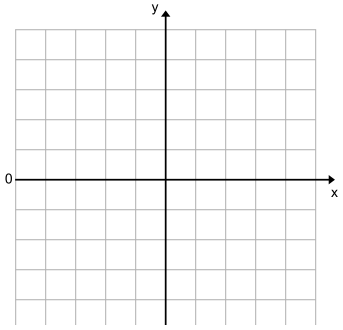
Find the x and y intercept.
1. $3x - 5y = 15$ _____ 2. $y = 2x + 7$ _____

3. A ball is thrown so its height h, in feet, is given by the equation $h = -16t^2 + 10t$, where t is the time in seconds. What is the height when t is ¼ seconds?

_____

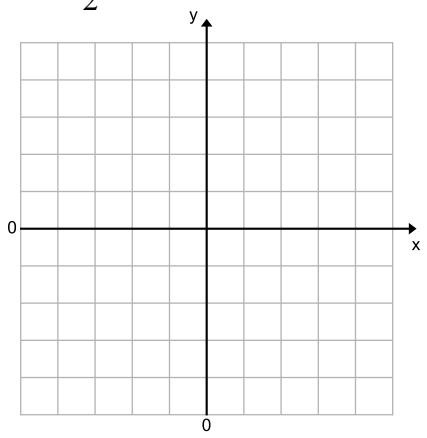
NOTES:



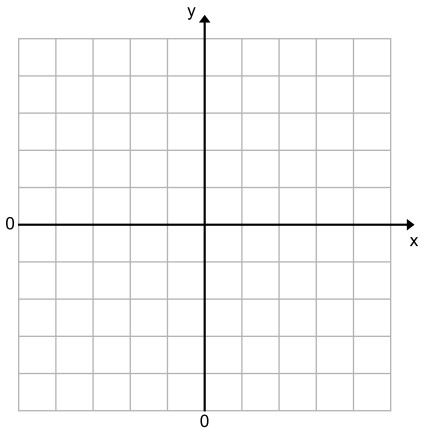


Graph and compare the graph with $y = x^2$.

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

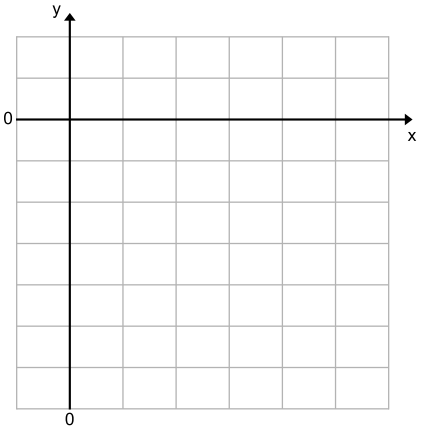


$y = -2x^2 + 4$

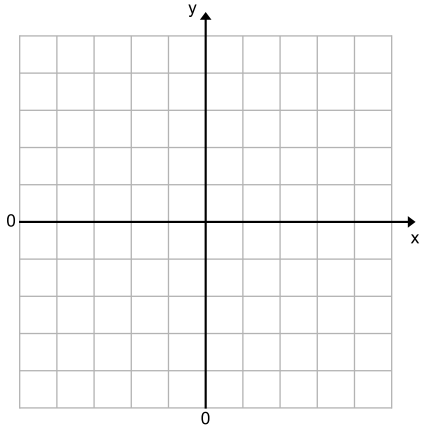


Graph. Label the vertex and axis of symmetry.

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



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



Tell whether the function has a minimum or maximum value. Then find the value.

$y = -2x^2 + 4x + 3$

$y = 4x^2 + 16x - 3$

Let's see if you comprehended what we worked on in class…

Try _____ for homework