

Review of Graphing Quadratic Functions

Standard Form: _____

Ex. A

Ex. B

$$y = 2x^2 - 4x - 6$$

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

Find the vertex using $x = \frac{-b}{2a}$ then substituting for x to find y.

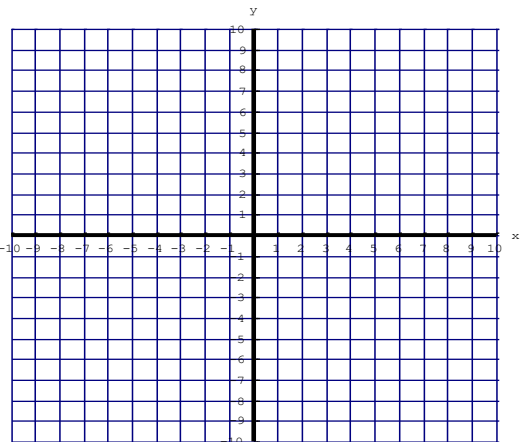
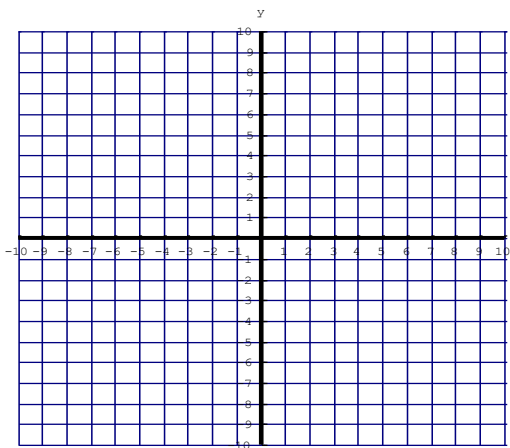
Make a table of values, using at least two points to the left and two points to the right of the vertex.

Plot your points

Connect the points with a smooth curve.

Find and sketch the axis of symmetry

State the domain and range of each.



(cont. on back)

Ex. C

Solve by factoring: $y = 2x^2 - 4x - 6$

Compare to your graph for Ex. A. What do you notice?

Ex. D

Miranda throws a set of keys up to her brother, who is standing on a balcony 38 ft. above the ground. She throws with a velocity of 40 ft/sec. and her hand is 5 ft off the ground.

- Graph the situation.
- How long does it take the keys to reach their highest point?
- Will her brother be able to catch the keys? How do you know?

