

7.4 – Factored Form of a Quadratic

Find my Vertex!

Determine the vertex of each parabola.

$$y = (x + 4)(x + 12)$$

$$y = 8(x - 5)(x + 9)$$

$$y = (x - 7)(x - 1)$$

$$y = -0.5(x - 1)(x + 7)$$

$$y = 2(x - 2)(x - 4)$$

$$y = 6x(x - 2)$$

$$y = -3(x + 2)(x + 8)$$

$$y = -3x(x - 8)$$

What's my y-Intercept?

Determine the parabola.

y-intercept of each

$$y = (x + 4)(x + 12)$$

$$y = 8(x - 5)(x + 9)$$

$$y = (x - 7)(x - 1)$$

$$y = -0.5(x - 1)(x + 7)$$

$$y = 2(x - 2)(x - 4)$$

$$y = 6x(x - 2)$$

$$y = -3(x + 2)(x + 8)$$

$$y = -3x(x - 8)$$

Part 3: Determine all of the interesting points for the following functions and then sketch the graph.

(x-intercepts, vertex, y-intercept)

$$y = x^2 + 9x + 18$$

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

$$y = 2x - 16x + 30$$

$$y = x^2 - 7x - 30$$

$$y = x^2 - 16$$

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