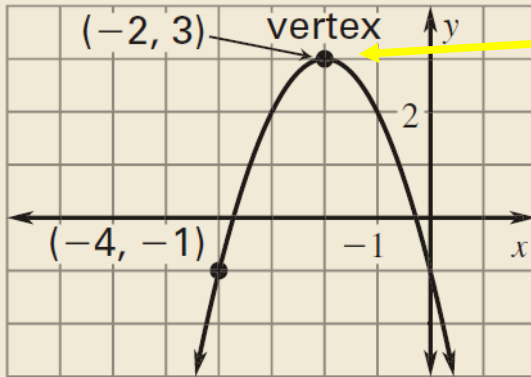


Write a quadratic function for the parabola shown.



Since the vertex is shown, use vertex form.

$$y = a(x - h)^2 + k$$

$$y = a(x - -2)^2 + 3$$

$$y = a(x + 2)^2 + 3$$

$$-1 = a(-4 + 2)^2 + 3$$

$$-1 = a(-2)^2 + 3$$

$$-1 = 4a + 3$$

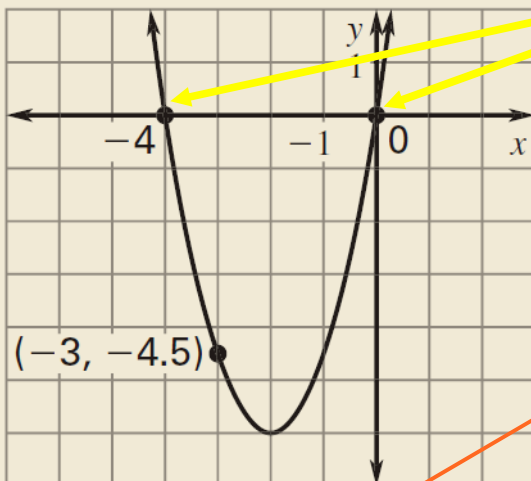
$$-4 = 4a$$

$$-1 = a$$

$$y = -1(x + 2)^2 + 3$$

Example 2:

Write a quadratic function for the parabola shown.



Since the intercepts are shown, use intercept form.

$$y = a(x - p)(x - q)$$

$$y = a(x - 0)(x - -4)$$

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

$$-4.5 = a(-3)(-3 + 4)$$

$$-4.5 = a(-3)(1)$$

$$-4.5 = -3a$$

$$1.5 = a$$

$$y = 1.5x(x + 4)$$