

Notes #20 ~ Sect. 5.3: Translating Parabolas

Vertex Form of a Quadratic Function: $y = a(x - h)^2 + k$

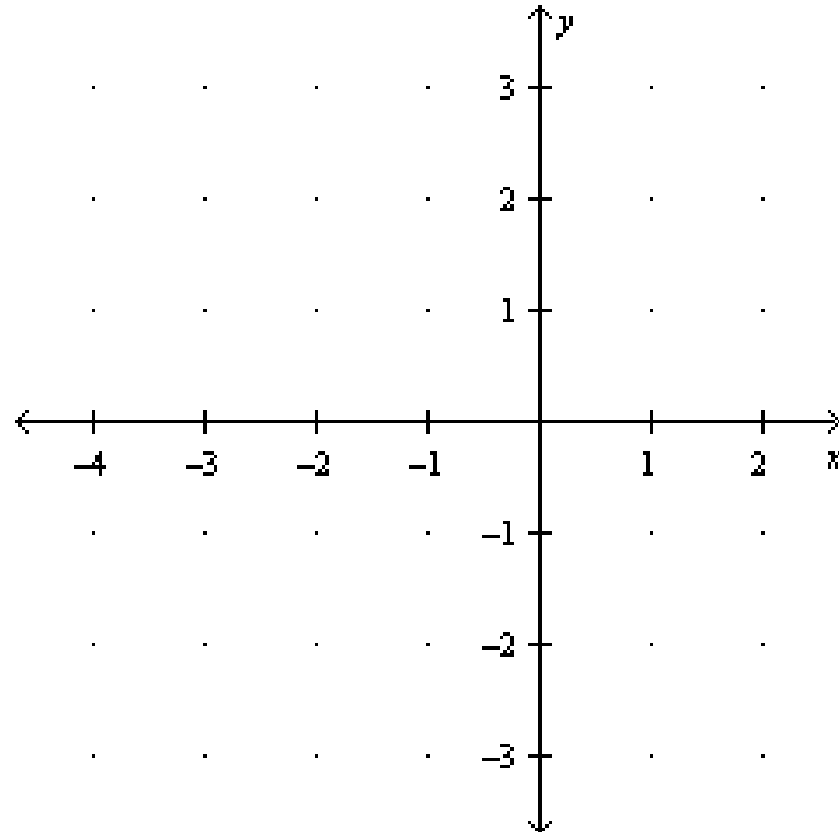
Vertex: (h, k)

Axis of Symmetry: $x = h$

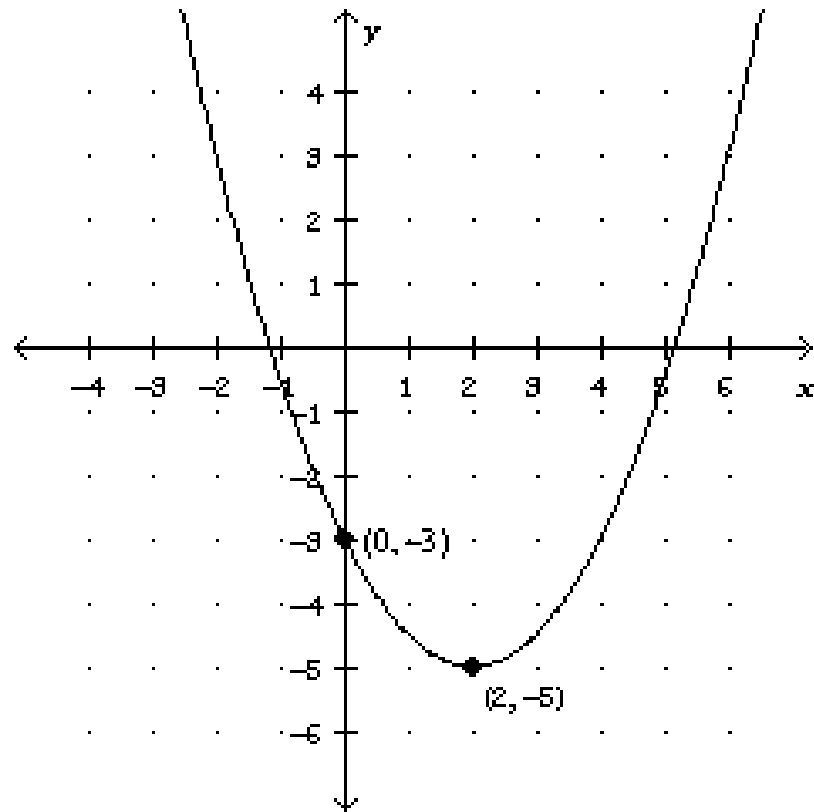
Ex. 1: Graph $y = \frac{2}{3}(x + 1)^2 - 2$

Vertex: (\quad , \quad)

Axis of Symmetry: $x =$



Ex. 2: Write the equation of the parabola shown below.



Ex 3: Identify the vertex and the y-intercept of the graph of the function.

$$y = 0.008(x - 25)^2 + 10$$

Ex. 4: Write each function in vertex form.

a) $y = -3x^2 + 12x + 5$

b) $y = -7x^2 - 70x - 169$