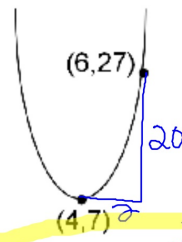


1.

$$y = -6(x + 3)^2 + 1$$

$$-5 = a(-4 + 3)^2 + 1 \quad -5 = a + 1$$

$$a \cdot 1 + 1 \rightarrow -6 = a$$



2.

$$y = 5(x - 4)^2 + 7$$

$$27 = 4a + 7$$

3. State the equation for the line of symmetry, the coordinates of the vertex, and the y-intercept for this parabola:

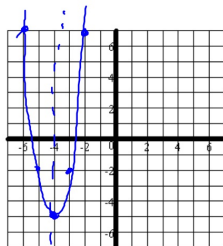
$$y = -3(x + 4)^2 - 10$$

$$\text{LOS: } x = -4$$

$$\text{Vertex: } (-4, -10)$$

$$\text{y-int: } -3(0 + 4)^2 - 10 = -58$$

4. Graph this parabola with five points. $y = 3(x + 4)^2 - 5$



$$\text{Vertex } (-4, -5)$$

$$\text{y-int} = 43$$

$$\frac{\sqrt{4 \times 3}}{2} = 2$$

x	y
-5	-5
-6	-6