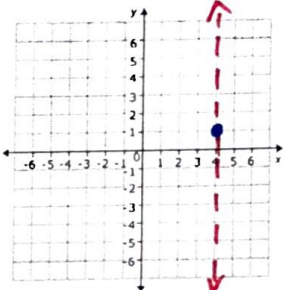
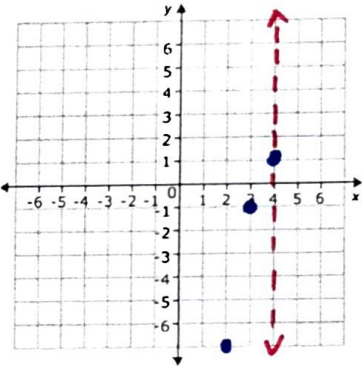


9-4 Graphing Quadratic Functions in VERTEX FORM

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

	<p>Example: $y = a(x - h)^2 + k$ $y = -2(x - 4)^2 + 1$</p>
<p>STEP 1: Identify the vertex. (h, k)</p> <p>(*h is the OPPOSITE of what it looks like in the equation)</p>	<p>$h = 4$ $k = 1$ $(4, 1)$</p> 
<p>STEP 2: Graph 2 more points on the same side of the vertex. Use the vertex/AOS to help you decide which x-values to evaluate.</p>	<p>* EVALUATE USING 2 AND 3</p> <p>$y = -2(x - 4)^2 + 1$ $y = -2(2 - 4)^2 + 1$ $y = -2(-2)^2 + 1$ $y = -2 \cdot 4 + 1$ $y = -8 + 1$ $y = -7$</p> <p>INPUT OUTPUT $(2, -7)$</p> <hr/> <p>$y = -2(3 - 4)^2 + 1$ $y = -2(-1)^2 + 1$ $y = -2 \cdot 1 + 1$ $y = -1$</p> <p>$(3, -1)$</p> 
<p>STEP 3: Reflect the points from Step 2 across the AOS.</p>	