

1.) Write a quadratic equation in vertex form if $a = -4$, $h = 5$ and $k = 2$.

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

2.) Identify the vertex of the quadratic function: $y = 4(x - 2)^2 - 5$

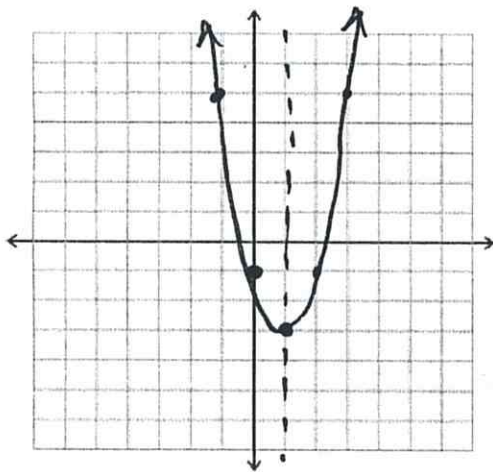
$$(2, -5)$$

What does the (4) in the equation represent $a = 4$, so parabola opens up. Vertex is a minimum.

3.) Graph the equation. Label the vertex and axis of symmetry. Show your table of values.

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

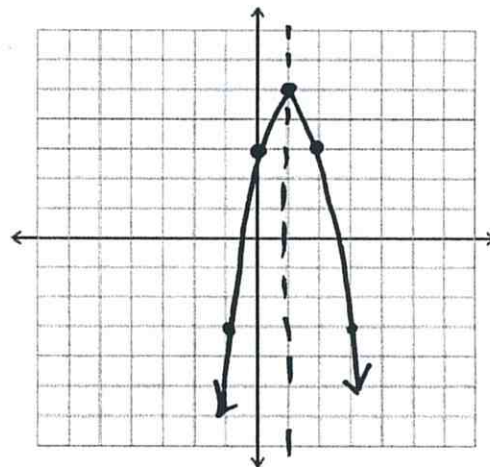
x	y
0	-1
1	-3
2	-1



4.) Graph the equation. Label the vertex and axis of symmetry. Show your table of values.

$$y = -2(x - 1)^2 + 5$$

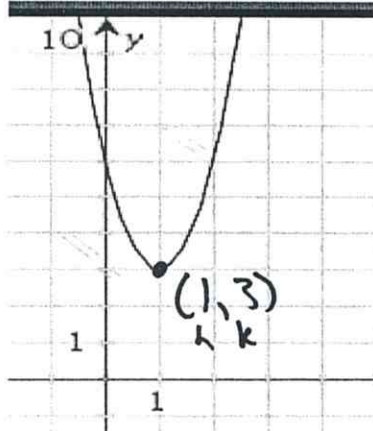
x	y
0	3
1	5
2	3



5.) Use the graph and the given equation to find a quadratic equation in vertex form.

$$a = 3$$

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



6.) Use the graph and the given equation to find a quadratic equation in vertex form.

$$a = -1$$

$$y = -1(x + 4)^2 + 2$$

