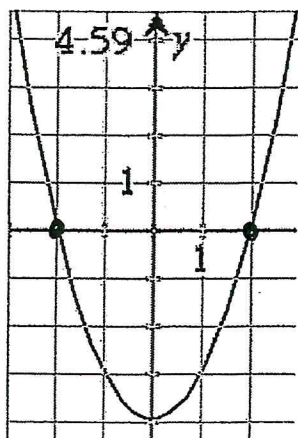
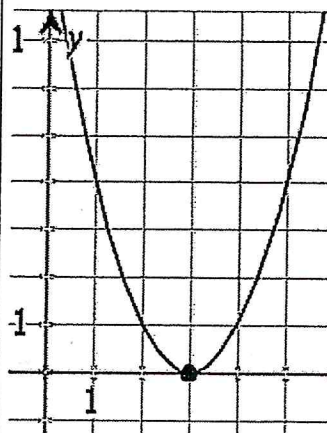


7.) Identify the zero(s) of the quadratic function.



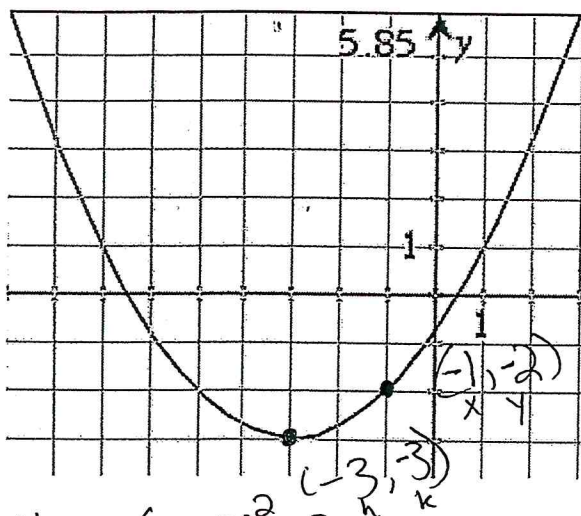
-2 and 2

8.) Identify and label the zero(s) of the quadratic function.



3

9.) Write the equation for the quadratic function in vertex form. (Hint: Don't forget about "a"!)



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

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

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

$$-2 = a(4) - 3$$

$$-2 + 3 = 4a - 3 + 3$$

$$1 = 4a$$

$$\frac{1}{4} = a$$

$$\frac{1}{4} = a$$

$$y = \frac{1}{4}(x + 3)^2 - 3$$

10.) Use your calculator to find the values for the following quadratic function. Then sketch the parabola.

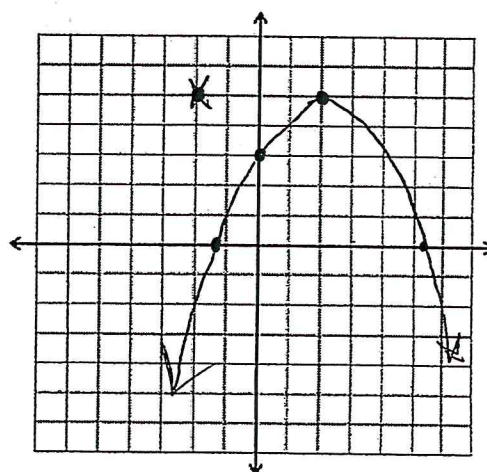
$$f(x) = -\frac{1}{2}(x - 2)^2 + 5$$

Vertex: (2, 5)

Axis of Symmetry: x = 2

Zeros: -1.16 and 5.16

y-int.: (0, 3)



1.) Write a quadratic equation in vertex form if $a = -3$, $h = 1$ and $k = -5$.

$$y = -3(x - 1)^2 - 5$$

2.) Identify the vertex of the quadratic function: $y = 7(x + 3)^2 - 8$

$$(-3, -8)$$

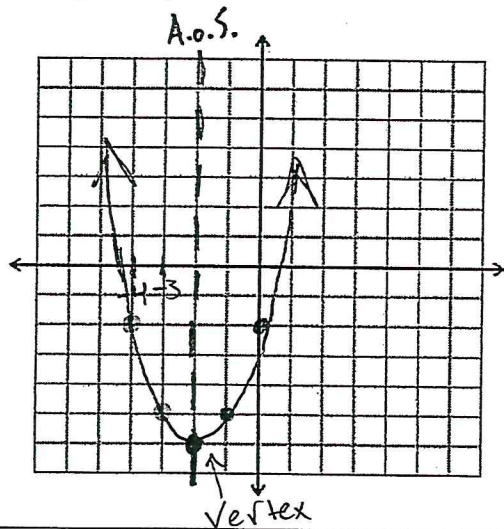
What does the (7) in the equation represent and how does it affect the graph?

the "a" value; parabola opens up because it is positive.

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

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

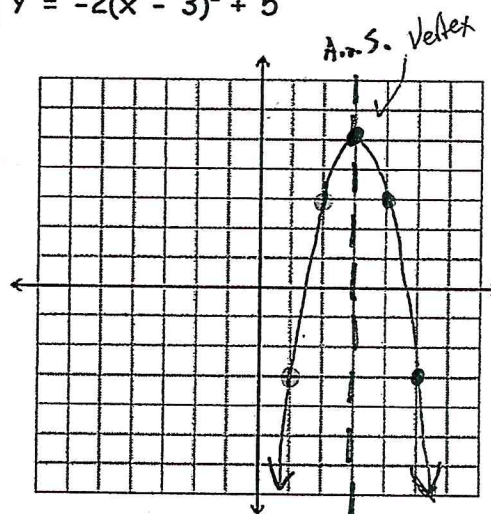
x	y
-3	-5
-4	-2



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

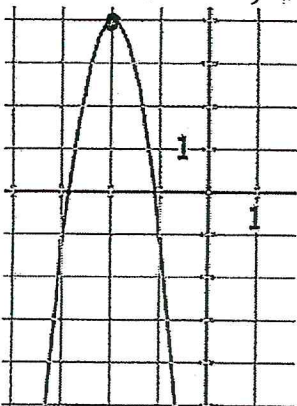
$$y = -2(x - 3)^2 + 5$$

x	y
2	3
1	-3



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

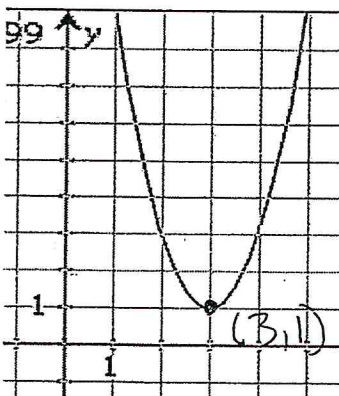
$$a = -5 \quad (-2, 4)$$



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

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

$$a = 2$$



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