Solutions to Unit #1 Assignment - Transformations & Graphing

1.
$$y = x^3$$

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

- 3. The Transformations are:
 - a. Reflection on the y axis
 - b. Vertical stretch by 6
 - c. Shift by 3 to the right
 - d. Shift by 2 up vertically

4.
$$(x, y) \rightarrow (x+3, -6y+2)$$

 $(-2, -8) \rightarrow (1, 50)$

$$(-1, -1) \rightarrow (2, 8)$$

$$(0, 0) \rightarrow (3, 2)$$

$$(1, 1) \rightarrow (4, -4)$$

$$(2, 8) \rightarrow (5, -46)$$

5. Black Line represents the original function Blue Line represents the transformed function

