ALEGRBA RH **HW**

I. Identify the needed information from the equation of the transformed function.

a. $g(x) = -\sqrt{x-1}$

Name _____

Transformations _____

b. $f(x) = \frac{1}{2}(x+10)^3 + 1$

Name _____

Transformations _____

c. $g(x) = -5|x| - 7$

Name _____

Transformations _____

* Put in VERTEX form first*

d. $h(x) = x^2 + 10x - 2$

Name _____

Transformations _____

e. $f(x) = 2x^2 - 16x + 3$

Name _____

Transformations _____

II. Write an equation of a function given the name and transformations

a. Absolute Value: Vertically stretched by a factor of 4, translated 3 units up

b. Cube Root: Vertically stretched by a factor of 3.45 and shifted 4 units left and 8 units up

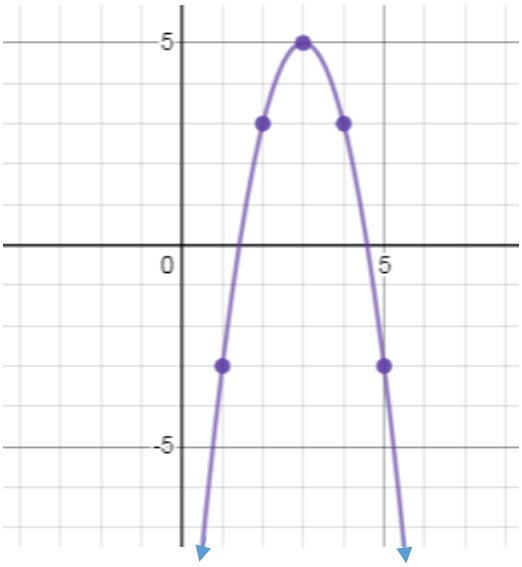
c. Quadratic **(in standard form):** Vertically stretched by a factor of 2, reflected over the x-axis, translated 4 units down and 5 units left

III. Write an equation of a new function given a ***NON PARENT*** function

Given $y = -3(x-1)^2 + 3$: Shift is 8 units up, 9 units left and reflect it over the x-axis

IV. Write an equation given the graph of the transformed function (Don't forget the "a" value)

A.



B.