

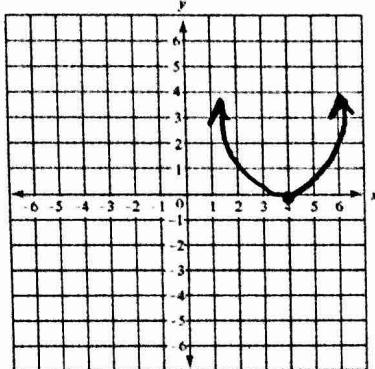
#13 Name \_\_\_\_\_

Period \_\_\_\_\_

Describe the transformation, then graph the following quadratics.

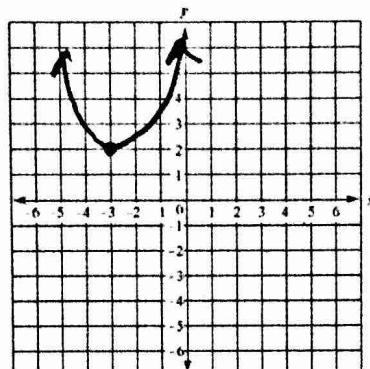
$$d(x) = (x - 4)^2$$

R + 4



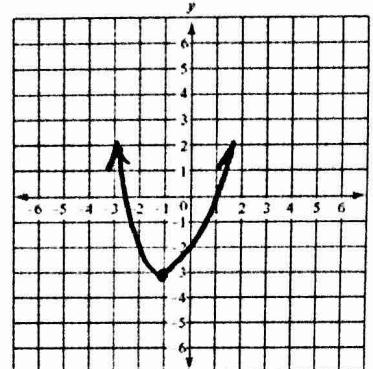
$$g(x) = (x + 3)^2 + 2$$

left + 3 up 2



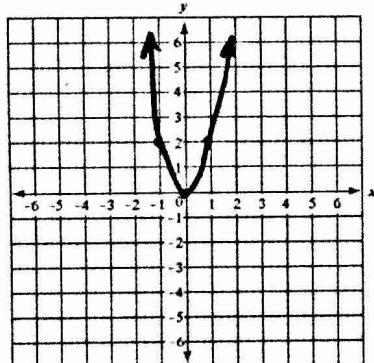
$$h(x) = (x + 1)^2 - 3$$

left + 1 down 3



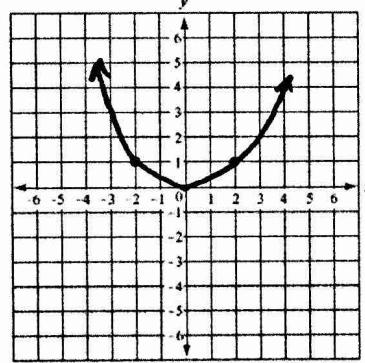
$$f(x) = 2x^2$$

Vert. Stretch by 2



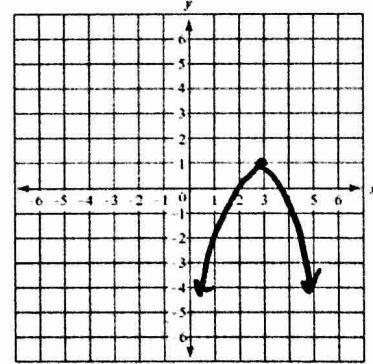
$$c(x) = \frac{1}{2}x^2$$

Vert. Comp. of  $\frac{1}{2}$



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

reflect x, R + 3 up 1



Write the equation of the quadratic if the parent function is vertically stretched by a factor of 2 and translated 3 units to the right.

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

Write the equation of the quadratic if the parent function is reflected across the x-axis and translated six units down.

$$y = -x^2 - 6$$

Describe each transformation of the quadratic parent function.

$$f(x) = -(x - 4)^2$$

reflect x, R + 4

$$f(x) = 8(x + 2)^2$$

V.S by 8, left + 2

$$f(x) = 4x^2$$

V.S by 4

$$f(x) = (x - 4)^2 + 3$$

R + 4, up 3