

# Transformations of Quadratics Worksheet Review

Name: \_\_\_\_\_ Period: \_\_\_\_\_

1. Describe the transformations of the quadratic parent function  $f(x) = x^2$  that results in the quadratic function:  $g(x) = 3x^2 + 12x + 20$  by completing the square to put the quadratic into vertex form.

Transform and graph each of the following:

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

Transform by:

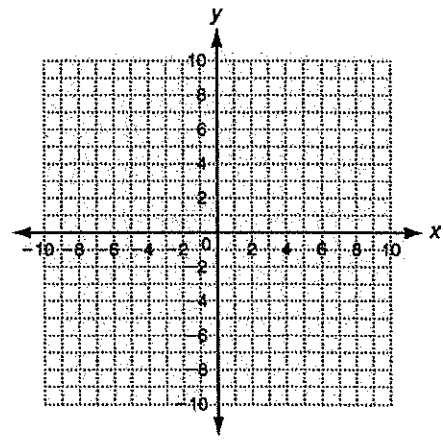
Slide vertically down by 1

Slide horizontally right by 3

Vertical stretch by a factor of 2

$f(x) =$  \_\_\_\_\_

Graph:



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

Transform by:

Slide horizontally left by 5

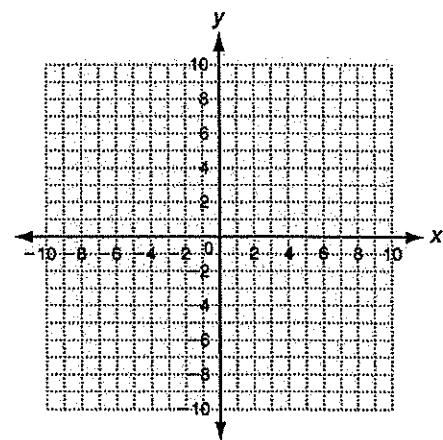
Slide vertically up by 4

Reflect about the x-axis

Stretch vertically by a factor of 3

$f(x) =$  \_\_\_\_\_

Graph:



Given the following transformed Quadratic Equation, Identify the Transformations:

7.  $f(x) = 2(x - 3)^2 + 1$

8.  $f(x) = -(x + 1)^2 + 8$

9.  $f(x) = -2(x + 4)^2 - 13$

1)

1)

1)

2)

2)

2)

3)

3)

3)

4)