

# Algebra 1

## Describing Transformations

### (Section 8.4)

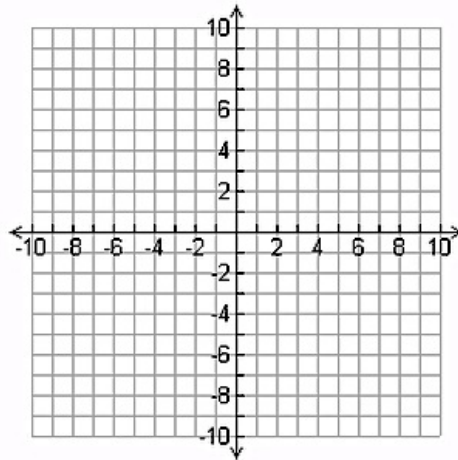
Describe the transformation of the graph from  $f$  to the graph of  $g$ . Then graph  $f$  and  $g$  in the same coordinate plane. Write an equation that represents  $g$  in terms of  $x$ .

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

$$g(x) = -f(x)$$

Transformation:

Equation:

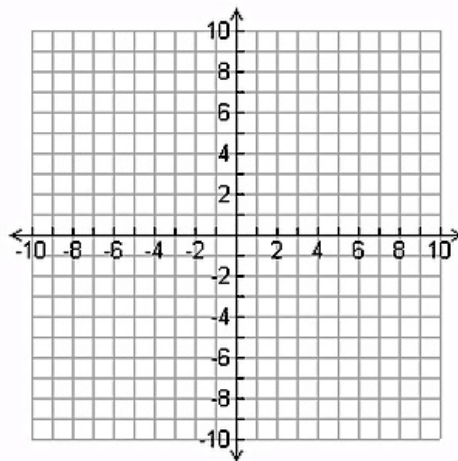


2.  $f(x) = 4x^2 - 8$

$$g(x) = f(x) + 5$$

Transformation:

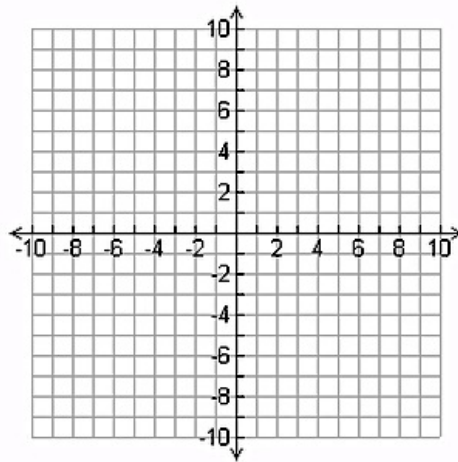
Equation:



3.  $f(x) = 2(x - 3)^2$   
 $g(x) = f(x) - 4$

Transformation:

Equation:



4.  $f(x) = -x^2 + 6$   
 $g(x) = f(x) + 2$

Transformation:

Equation:

