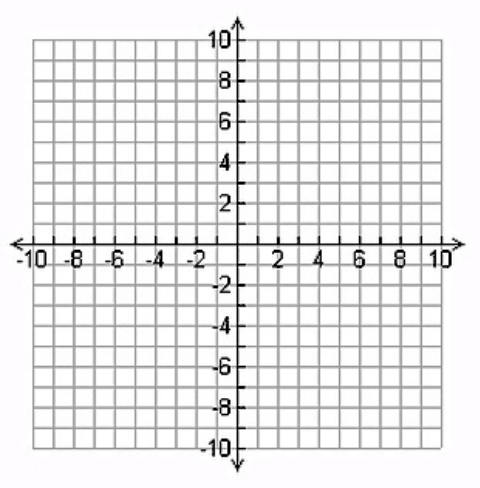
Algebra 1 **Name _____**
Section 8.1, 8.2, and 8.4 Review

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. $f(x) = x^2 - 5$
   $g(x) = f(x) + 2$

Transformation:

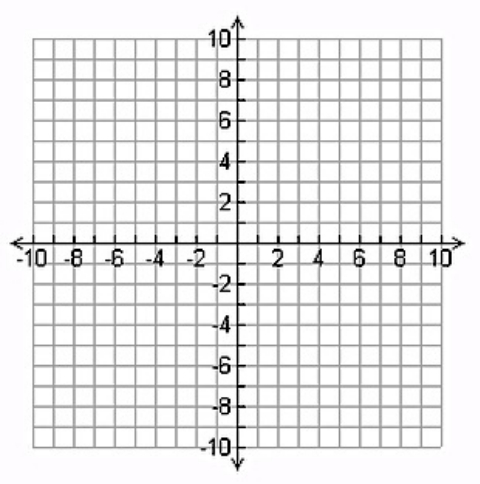
Equation:



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

Transformation:

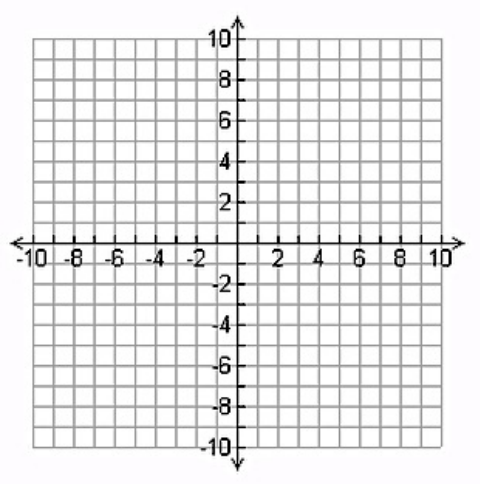
Equation:



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

Transformation:

Equation:



Identify the following characteristics:

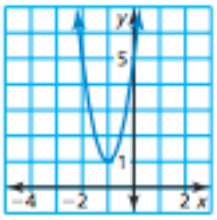
4.

Vertex:

AOS:

(Set Notation)
Domain:

Range:



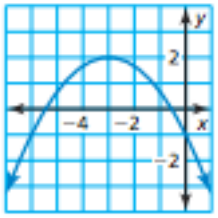
5.

Vertex:

AOS:

(Interval Notation)
Domain:

Range:



Identify the vertex , the axis of symmetry, and the maximum or minimum of each quadratic function. Describe the transformation compared to the parent function $f(x)=x^2$.

6. $f(x)=\frac{5}{4}(x+3)^2-2$

Vertex:

AOS:

Min/Max:

Transformations:

7. $f(x)=-0.5x^2+8$

Vertex:

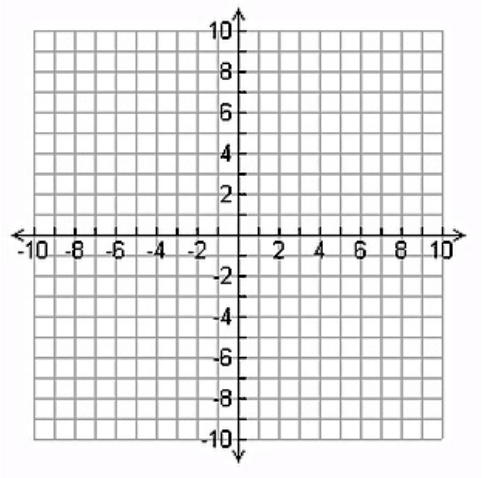
AOS:

Min/Max:

Transformations:

Graph the function by making a table of values. State the domain and range.

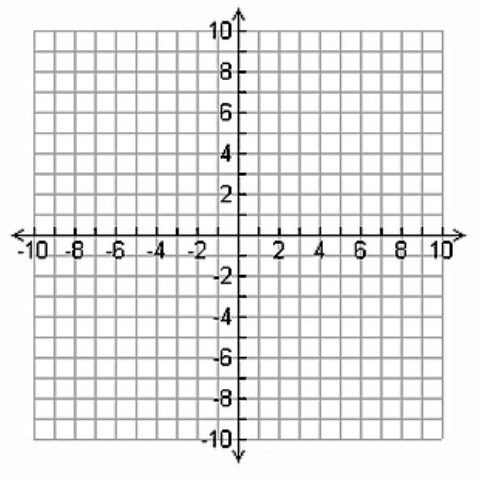
8. $f(x)=(x+2)^2-1$



(Set Notation)
Domain:

Range:

9. $-2(x-3)^2$



(Interval Notation)
Domain:

Range: