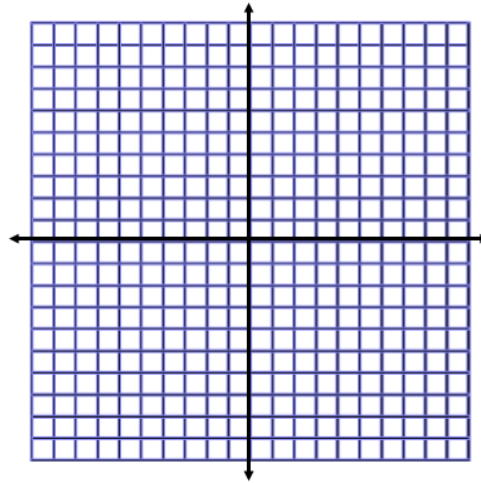


Directions: Without a calculator, give the name of the parent function, give the equation of the parent function, graph the given function and the parent function, and describe the transformation of the parent function to the given function.

1. $g(x) = -(x+3)^2 - 1$ Name of Parent Function: _____

Equation of Parent Function: _____

Graph:

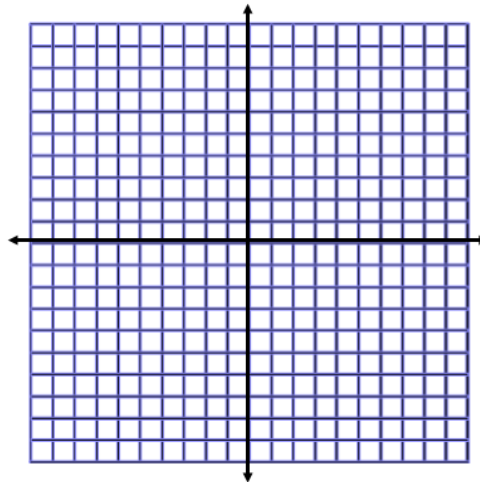


Transformation: _____

2. $g(x) = -|x-1|$ Name of Parent Function: _____

Equation of Parent Function: _____

Graph:



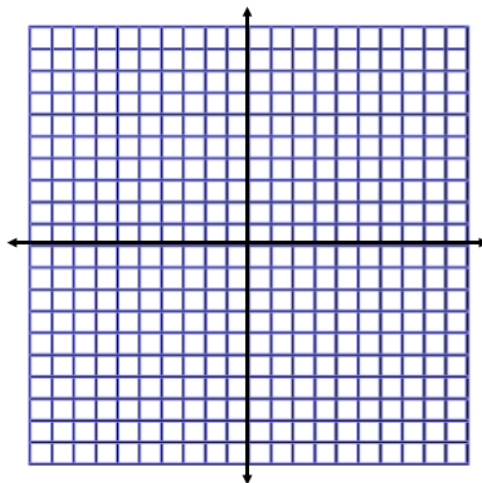
Transformation: _____

3. $h(x) = \sqrt{x-2}$

Name of Parent Function: _____

Equation of Parent Function: _____

Graph:



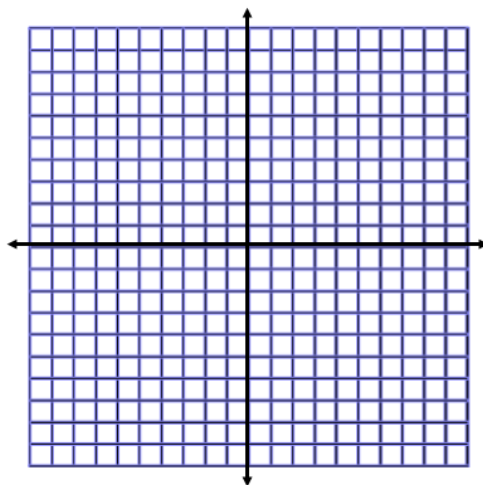
Transformation: _____

4. $g(x) = -\frac{1}{x+6} + 2$

Name of Parent Function: _____

Equation of Parent Function: _____

Graph:



Transformation: _____

Directions: Identify the domain and range of the function using interval notation (you may want to sketch a graph). Describe the transformation of the given function from its parent function.

5. $g(x) = \sqrt{x-1}$ Domain : _____ Range : _____

Transformation: _____

6. $h(x) = -x^2 + 1$ Domain : _____ Range : _____

Transformation: _____

7. $h(x) = -|x - 2|$ Domain : _____ Range : _____

Transformation: _____

8. $h(x) = -(x + 9)^2$ Domain : _____ Range : _____

Transformation: _____

Directions: Given the parent function and a description of the transformation, write the equation of the transformed function, $f(x)$.

9. Absolute value—vertical shift up 5, horizontal shift right 3.

10. Square Root— Reflection over the x-axis, horizontal shift left 2.
