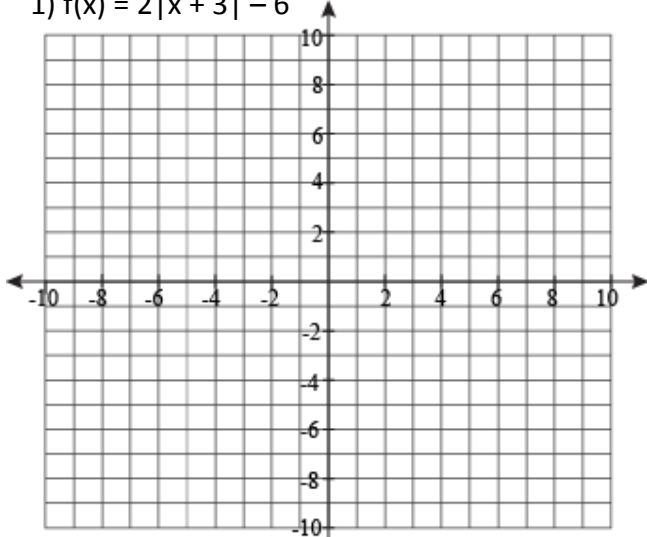


Transformations of Absolute Value

Name: _____

Graph each function and identify the specified attributes of the graph.

1) $f(x) = 2|x + 3| - 6$



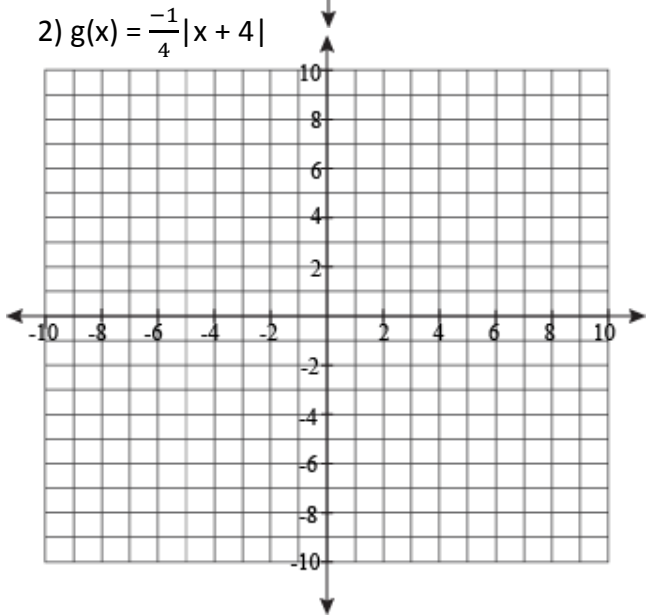
Vertex: _____

Increasing: _____ Decreasing: _____

Domain: _____ Range: _____

Transformation(s): _____

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



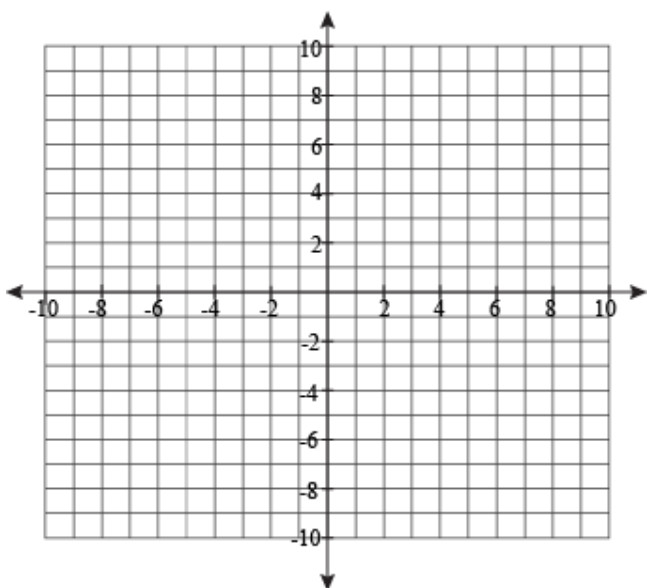
Vertex: _____

Increasing: _____ Decreasing: _____

Domain: _____ Range: _____

Transformation(s): _____

3) $h(x) = 3|4 - x| + 1$



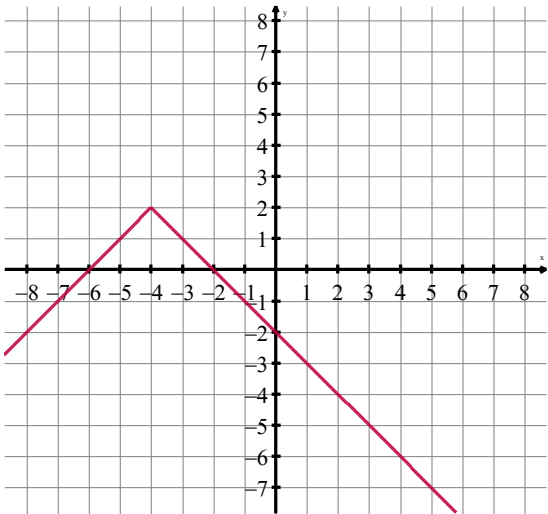
Vertex: _____

End Behavior: _____

Domain: _____ Range: _____

Transformation(s): _____

4) The graph of $h(x)$ is shown below. Write the equation from the graph and identify its characteristics.



Equation: _____ Vertex: _____

End Behavior: _____

Domain: _____ Range: _____

Transformation(s): _____

Describe each transformation.

5) What transformation(s) changed $f(x) = |x + 2| - 1$ into $g(x) = |x + 7| + 2$?

6) What transformation(s) changed $f(x) = |x + 4|$ into $g(x) = \left|\frac{1}{2}(x + 2)\right|$?

7) What transformation(s) changed $f(x) = 2|3 - x|$ into $g(x) = 6|x - 3|$?

8) The function $f(x) = |x - 1| - 1$ is shifted two units to the right to create the function $g(x)$. Identify the characteristics of each graph. Write "No change" if the characteristics of $g(x)$ do not change from those of $f(x)$.

$f(x)$ y-intercept: _____

$g(x)$ y-intercept: _____

$f(x)$ x-intercept(s): _____

$g(x)$ x-intercept(s): _____

$f(x)$ domain: _____

$g(x)$ domain: _____

$f(x)$ range: _____

$g(x)$ range: _____

$f(x)$ equation: _____

$g(x)$ equation: _____