

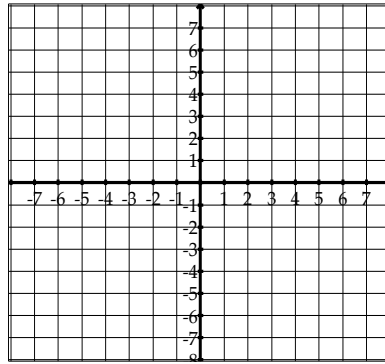
Notes 2-7A Absolute Value Functions and Transformations
Algebra II

Name _____

Period _____

Parent Function: $f(x) = |x|$

x	y



Vertex: _____

Here's what we learned from the Desmos Lab:

If we want to...	the equation should be...	the function notation should be...
slide the graph vertically k spaces		
stretch/compress the graph vertically, scale factor a		
slide the graph horizontally h spaces		
flip the graph vertically		

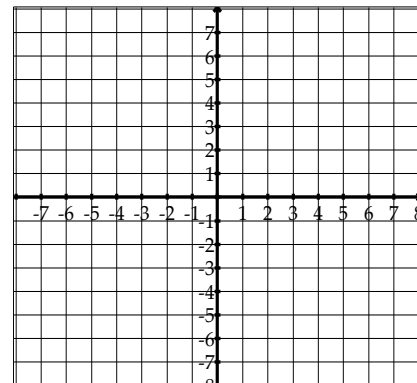
Vertex form: $f(x) = a|x - h| + k$ The vertex is located at (____, ____)

Examples: List the transformations, label the vertex and graph each of the following:

$f(x) = |x + 3| + 2$ Trans: _____

vertex: _____

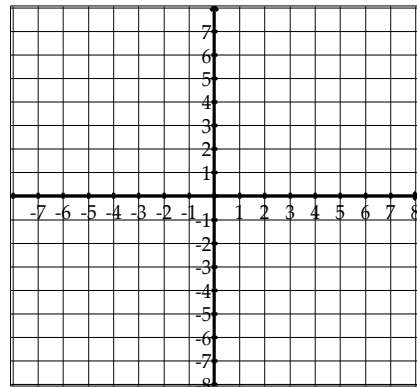
x	y



$f(x) = |x - 4| - 3$ Trans: _____

vertex: _____

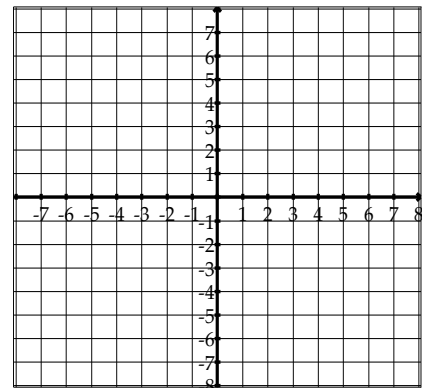
x	y



$f(x) = 3|x|$ Trans: _____

vertex: _____

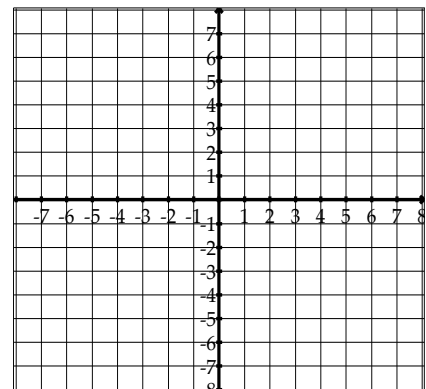
x	y



$f(x) = -|x - 2| + 3$ Trans: _____

x	y

Vertex: _____



$f(x) = \frac{1}{2}|x + 2|$ Trans: _____

Vertex: _____

x	y

