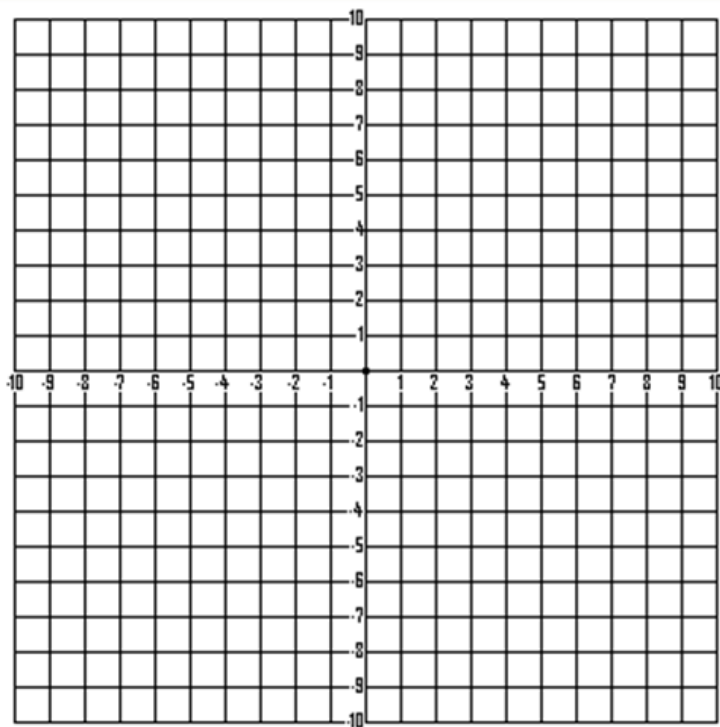


The Math Dawg: Horizontal and Vertical Stretches of Functions Using $f(x)$ Function Notation_1

DIRECTIONS: For some problems you may use the Desmos graphing calculator located at www.desmos.com

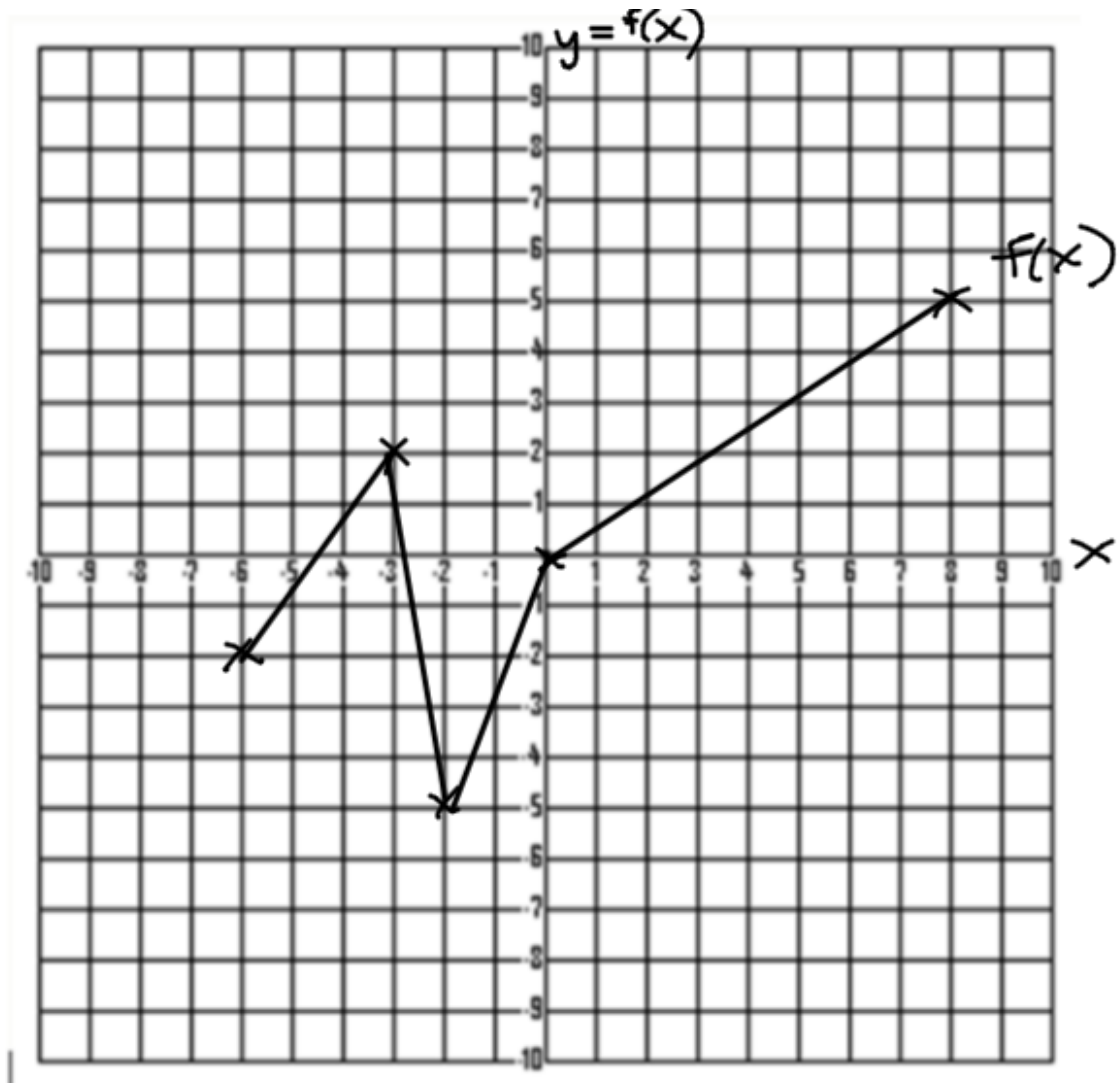
- Given the function $f(x) = |x|$ complete the table below and plot both $f(x)$ and $2f(x)$.

x	$f(x)$	$(x, f(x))$	$2f(x)$	$(x, 2f(x))$
-4				
-3				
-2				
0				
2				
3				
4				



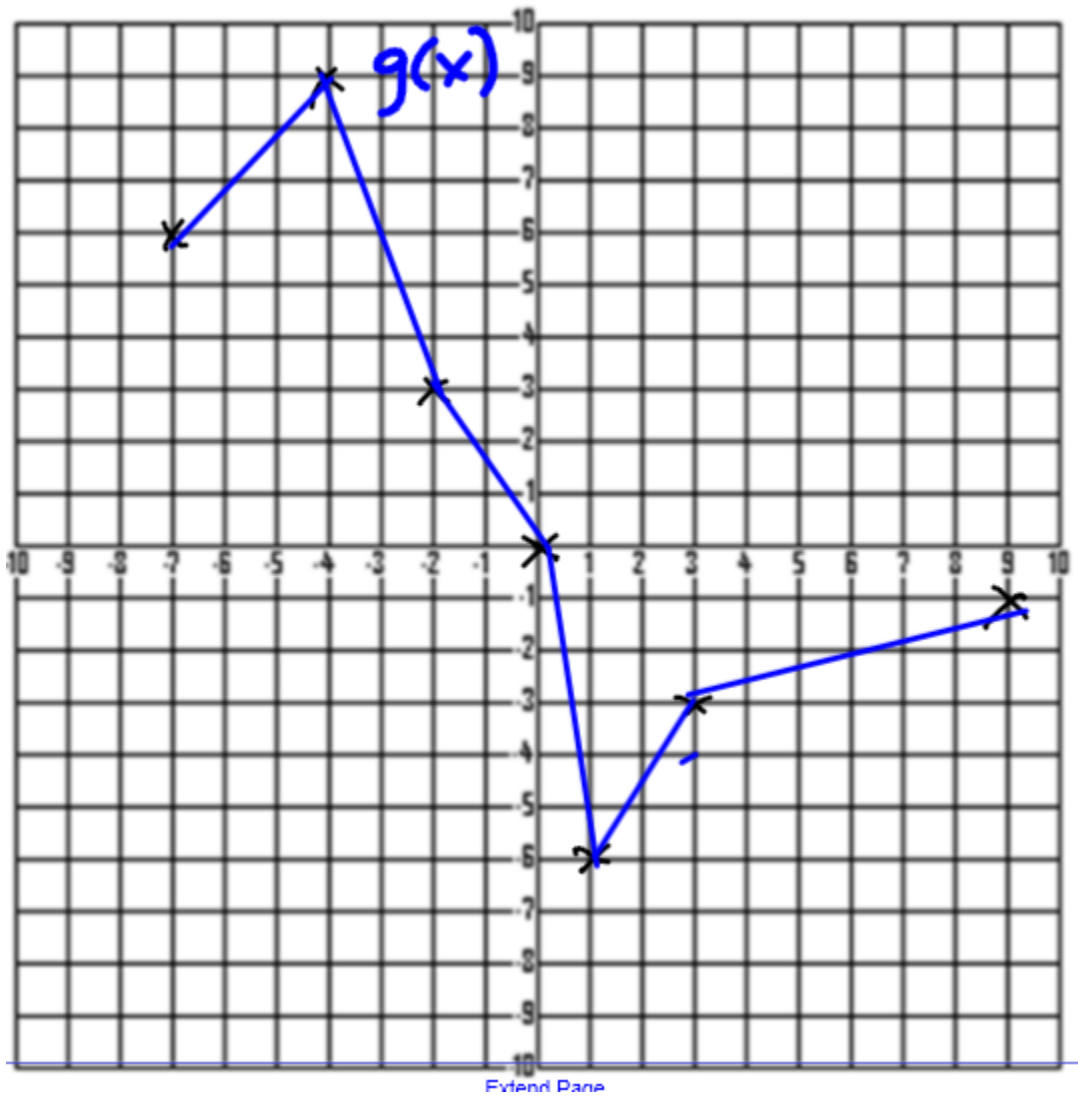
The Math Dawg: Horizontal and Vertical Stretches of Functions Using $f(x)$ Function Notation_1

2. Given the function $f(x)$ pictured below graph $f(2x)$



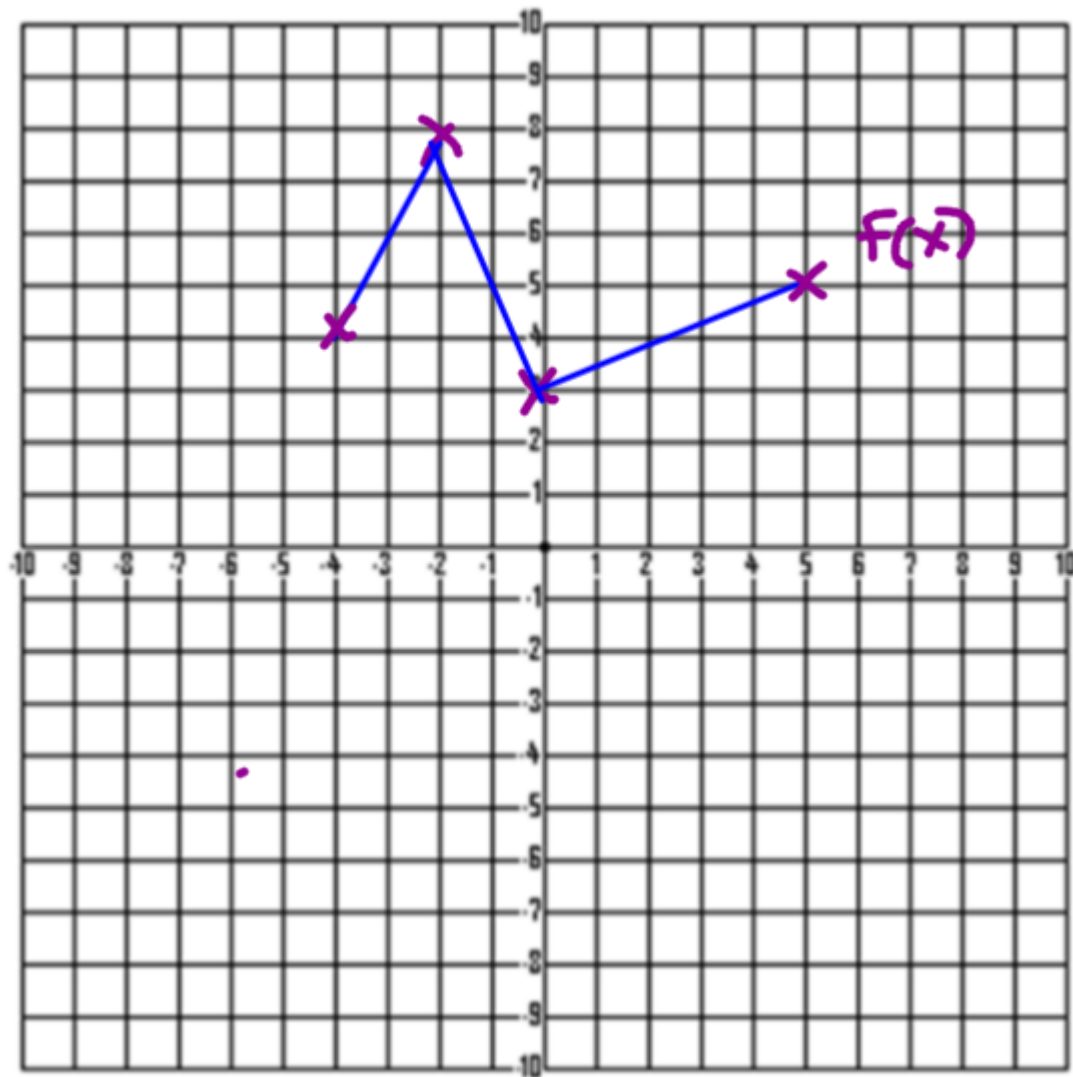
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3. Given the function $g(x)$ shown below graph $\frac{1}{3}g(x)$ on the grid.



The Math Dawg: Horizontal and Vertical Stretches of Functions Using $f(x)$ Function Notation_1

4. Given the graph of $f(x)$ below sketch $\frac{1}{4}f(\frac{1}{2}x)$



The Math Dawg: Horizontal and Vertical Stretches of Functions Using $f(x)$ Function Notation_1

5. Use 2 vertical/horizontal compressions to write a function equivalent to $f(x) = \sqrt{x}$