

Chapter 1.3: Stretching and Shifting Calculus I

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Use the values for $g(x)$ given in the first table to complete the second table. If x is not in the table below, assume that $g(x) = 1$.

x	$g(x)$
-5	1
-4	1
-3	1
-2	2
-1	1
0	1
1	1
2	-2
3	1
4	1
5	1

x	$g(x) + 2$	$g(x + 2)$	$g(x - 2)$	$2g(x)$	$g(2x)$	$g(x/2)$
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						

Sketch (on the same axes) the following functions using the table of numbers you just made.

1. $g(x)$ and $2g(x)$.
2. $g(x)$, $g(x) + 2$, and $g(x) - 2$
3. $g(x)$, $g(x + 2)$, and $g(x - 2)$
4. $g(x)$, $g(2x)$, and $g(x/2)$

Now make a table of numbers for $g(-x)$ and $-g(x)$. Then sketch $g(x)$, $g(-x)$, and $-g(x)$ on the same axes.