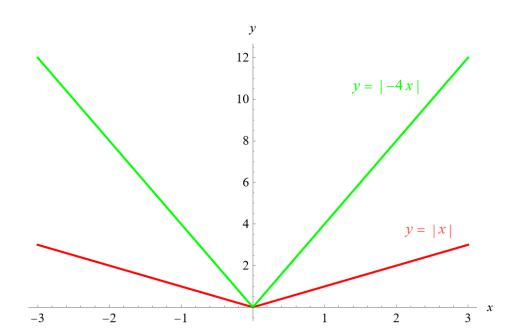
Exercise 63

For the following exercises, write a formula for the function g that results when the graph of a given toolkit function is transformed as described.

The graph of f(x) = |x| is reflected over the y-axis and horizontally compressed by a factor of $\frac{1}{4}$.

Solution

To reflect the graph of f(x) over the y-axis, replace x with -x. Then to horizontally compress by a factor of 1/4, replace x with 4x.



$$g(x) = |-4x| = |4x|$$