

Exercise 64

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 $f(x) = \sqrt{x}$ is reflected over the x -axis and horizontally stretched by a factor of 2.

Solution

To reflect the graph of $f(x)$ over the x -axis, place a minus sign in front of the square root function. Then to horizontally stretch by a factor of 2, replace x with $(1/2)x$.

$$g(x) = -\sqrt{\frac{1}{2}x}$$

