## Exercise 45

For the following exercises, use the graphs of the transformed toolkit functions to write a formula for each of the resulting functions.


## Solution

This is a square root function that's been reflected over the $y$-axis and shifted up by 1 unit. Start with the standard square root function.

$$
y=\sqrt{x}
$$



Reflect it over the $y$-axis.

$$
y=\sqrt{-x}
$$



Shift it up by 1 unit.

$$
y=\sqrt{-x}+1
$$



$$
f(x)=\sqrt{-x}+1
$$

