

Exercise 2

In Exercises 1–6, find the domain and range of each function.

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

Solution

Only values of x that are zero or positive can be plugged into a square root function: $x \geq 0$.

$$\text{Domain: } \{x \mid x \geq 0\}$$

The \sqrt{x} term can be either zero or higher than that, so the lowest value of f is $-\infty$ and the highest value of f is 1.

$$\text{Range: } \{y \mid -\infty \leq y \leq 1\}$$

