Exercise 25

In Exercises 19–28, find any intercepts.

$$y = \frac{2 - \sqrt{x}}{5x + 1}$$

Solution

To find the y-intercept, plug in $x = 0$ to the function.

$$y = \frac{2 - \sqrt{0}}{5(0) + 1} = 2$$

Therefore, the y-intercept is $(0, 2)$. To find the x-intercept(s), set $y = 0$ and solve the equation for x.

$$\frac{2 - \sqrt{x}}{5x + 1} = 0$$

$$2 - \sqrt{x} = 0$$

$$x = 4$$

Therefore, the x-intercept is $(4, 0)$.