Exercise 20

For the following exercises, find the domain of each function, expressing answers using interval notation.

$$f(x) = \frac{2}{3x + 2}$$

Solution

The denominator of a rational function cannot be zero.

$$3x + 2 \neq 0$$

Solve for x.

$$3x \neq -2$$

$$x \neq -\frac{2}{3}$$

Therefore, the domain is

$$\left(-\infty, -\frac{2}{3}\right) \cup \left(-\frac{2}{3}, \infty\right).$$