

Exercise 75

Determine whether f is even, odd, or neither. If you have a graphing calculator, use it to check your answer visually.

$$f(x) = \frac{x}{x+1}$$

Solution

Substitute $-x$ for x and see what happens.

$$\begin{aligned} f(-x) &= \frac{-x}{-x+1} \\ &= \frac{x}{x-1} \end{aligned}$$

f is neither even nor odd because $f(-x) \neq f(x)$ and $f(-x) \neq -f(x)$. This is indicated by the lack of symmetry about the vertical axis or origin.

