Exercise 3

Can a function be its own inverse? Explain.

Solution

Yes, a function is its own inverse if

$$f(f(x)) = x,$$

and $f(x) = 1/x$ is an example that satisfies this requirement.

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