

Exercise 8

Write a formula for the function obtained when the graph of $f(x) = \frac{1}{x}$ is shifted down 4 units and to the right 3 units.

Solution

To shift the graph down 4 units, subtract 4 from the function.

$$y = \frac{1}{x} - 4$$

To also shift the graph to the right 3 units, replace x with $x - 3$.

$$y = \frac{1}{x - 3} - 4$$

