

Inverse Functions

Inverse functions -

The domain

For a function to have an inverse

To find the inverse

Determine whether each pair of functions  $f$  and  $g$  are inverse of each other

1)  $f(x) = 6x$  and  $g(x) = \frac{x}{6}$

3)  $f(x) = 3x - 7$  and  $g(x) = \frac{x+3}{7}$

2)  $f(x) = \frac{3}{x-4}$  and  $g(x) = \frac{3}{x} + 4$

4)  $f(x) = 4x + 9$  and  $g(x) = \frac{x-9}{4}$

Find  $f^{-1}(x)$ , then verify it by showing  $f(f^{-1}(x)) = f^{-1}(f(x)) = x$

5)  $f(x) = \frac{2}{x}$