

State if the given functions are inverses.

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

$g(x) = -\frac{3}{x-1}$

2)  $h(x) = \sqrt[5]{-x+1}$   
 $f(x) = -x^5 + 1$

3)  $f(x) = x^5 + 2$   
 $h(x) = -2(x+3)^3$

4)  $f(x) = (x+1)^3$   
 $g(x) = \sqrt[3]{x} - 1$

Find the inverse of each function.

5)  $g(x) = -\frac{5}{4}x$

6)  $g(x) = \frac{4-7x}{2}$

7)  $g(x) = -3x$

8)  $f(x) = 1 + \frac{1}{5}x$

9)  $g(x) = 4 - \frac{6}{5}x$

10)  $f(x) = \frac{3}{8}x - \frac{25}{8}$

11)  $g(x) = \frac{4x-5}{3}$

12)  $f(x) = 5x - 25$

## Answers to Assignment :Inverse

1) No

$$5) g^{-1}(x) = -\frac{4}{5}x$$

$$9) g^{-1}(x) = -\frac{5}{6}x + \frac{10}{3}$$

2) Yes

$$6) g^{-1}(x) = \frac{-2x + 4}{7}$$

$$10) f^{-1}(x) = \frac{8}{3}x + \frac{25}{3}$$

3) No

$$7) g^{-1}(x) = -\frac{1}{3}x$$

$$11) g^{-1}(x) = \frac{3x + 5}{4}$$

4) Yes

$$8) f^{-1}(x) = 5x - 5$$

$$12) f^{-1}(x) = 5 + \frac{1}{5}x$$

