State if the given functions are inverses.

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

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

2) $f(x) = -\frac{4}{x-2}$

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

3) $g(x) = -10x - 25$

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

4) $h(x) = \frac{1}{8}x - \frac{21}{8}$

$f(x) = -\frac{3}{2}x - \frac{13}{2}$

Find the inverse of each function.

5) $f(x) = \frac{25-8x}{5}$

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

7) $h(x) = -(x-2)^3$

8) $g(x) = \sqrt[3]{x-3} - 1$

9) $f(x) = \sqrt[3]{\frac{-x+3}{2}}$

10) $f(x) = \sqrt[3]{x-1}$

Answers to 12-05-02-T

1) Yes

2) No

3) Yes

4) No

5) $f^{-1}(x) = \dfrac{-5x + 25}{8}$

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

7) $h^{-1}(x) = -\sqrt[3]{x} + 2$

8) $g^{-1}(x) = 3 + (x + 1)^3$

9) $f^{-1}(x) = 3 - 2x^3$

10) $f^{-1}(x) = x^3 + 1$