

Inverse Functions

(a)	(b)	(c)
$f(x) = \frac{2}{\sqrt{x}} + 4$ Find $f^{-1}(x)$	$g(x) = 3 - 2x$ Find $g^{-1}(7)$	$h(x) = \frac{1}{x^2 - 3}$ Evaluate $h^{-1}\left(\frac{1}{5}\right)$
(d)	(e)	(f)
$g(x) = \frac{x - 2}{1 + 3x}$ Find $g^{-1}(x)$	The function f is such that $f(x) = 3x^2 - 24x + 30 \text{ where } x \geq 4$ Find the inverse function $f^{-1}(x)$	The function g is such that $g: x \mapsto 5x^2 - 20x + 9 \text{ where } x \leq 2$ Express the inverse function g^{-1} in the form $g^{-1}: x \mapsto$
(g)		
$f(x) = x + 3 \qquad g(x) = \frac{2x}{x + 1}$ Given that $h(x) = gf(x)$, find $h^{-1}(x)$		

Inverse Functions

(a)	(b)	(c)
$f(x) = \frac{2}{\sqrt{x}} + 4$ Find $f^{-1}(x)$ $f^{-1}(x) = \left(\frac{2}{x-4}\right)^2$	$g(x) = 3 - 2x$ Find $g^{-1}(7)$ -2	$h(x) = \frac{1}{x^2 - 3}$ Evaluate $h^{-1}\left(\frac{1}{5}\right)$ $2\sqrt{2}$
(d)	(e)	(f)
$g(x) = \frac{x-2}{1+3x}$ Find $g^{-1}(x)$ $g^{-1}(x) = \frac{x+2}{1-3x}$	The function f is such that $f(x) = 3x^2 - 24x + 30$ where $x \geq 4$ Find the inverse function $f^{-1}(x)$	The function g is such that $g: x \mapsto 5x^2 - 20x + 9$ where $x \leq 2$ Express the inverse function g^{-1} in the form $g^{-1}: x \mapsto$
(g)	$f^{-1}(x) = 4 + \sqrt{\frac{x+18}{3}}$	$g^{-1}: x \mapsto 2 - \sqrt{\frac{x+11}{5}}$
$f(x) = x + 3 \qquad g(x) = \frac{2x}{x+1}$ Given that $h(x) = gf(x)$, find $h^{-1}(x)$ $h^{-1}(x) = \frac{4x-6}{2-x}$		