

a $f(x) = 7 - 2x$ Find $f^{-1}(x)$ $\frac{7-x}{2}$ the inverse with a negative coefficient	b $f(x) = 4 - 3x$ Solve $f^{-1}(x) = 2$ $x = -2$ an inverse equal to a value	c $f(x) = 2x + 1$, $g(x) = \frac{1}{x}$ Write $fg(x)$ as a fraction $\frac{x+2}{x}$ a composite as a single fraction	d $f(x) = ax + b$, $f(1) = 5$ and $f(3) = 11$ Find a and b $a = 3, b = 2$ a function from two values
e $f(x) = 5 - x$ Find $f^{-1}(x)$. What do you notice? $5 - x, \text{ the same as } f$ a function that is its own inverse	f $f(x) = 3x + k$ and $ff(x) = 9x + 8$ Find k $k = 2$ an unknown in a composite	g $f(x) = \frac{x+3}{x-2}$ Find $f^{-1}(x)$ $\frac{2x+3}{x-1}$ an inverse with x top and bottom	h For $x \geq 3$, $f(x) = (x-3)^2 + 2$ Find $f^{-1}(x)$ $3 + \sqrt{x-2}$ undoing a completed square
i $f(x) = 2^x$ and $g(x) = x + 3$ Show that $fg(x) = 8f(x)$ $2^{x+3} = 2^3 \times 2^x$ indices in a composite	j $f(x) = x^2$ and $g(x) = x + 3$ Solve $fg(x) = 2gf(x)$. Give exact answers. $x = 3 \pm 2\sqrt{3}$ exact answers from a composite	k $f(x) = \frac{1}{1-x}$ Write $ff(x)$ as a single fraction $\frac{x-1}{x}$ a fraction inside a fraction	l $f(x) = 2x - 3$ and $gf(x) = 4x - 5$ Find $g(x)$ $2x + 1$ finding a function from a composite

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