

Fill in the Blanks

Inverse Two-Step Functions

Question	Function Machines	Answer
$f(x) = 3x - 1$ Find $f^{-1}(x)$	$x \rightarrow \times 3 \rightarrow -1 \rightarrow f(x)$ $f^{-1}(x) \leftarrow \div 3 \leftarrow +1 \leftarrow x$	$f^{-1}(x) = \frac{x + 1}{3}$
$f(x) = x^2 - 5$ Find $f^{-1}(x)$	$x \rightarrow \text{square} \rightarrow -5 \rightarrow f(x)$ $f^{-1}(x) \leftarrow \text{square root} \leftarrow +5 \leftarrow x$	$f^{-1}(x) =$
$f(x) = \frac{x - 3}{2}$ Find $f^{-1}(x)$	$x \rightarrow -3 \rightarrow \div 2 \rightarrow f(x)$ $f^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$f^{-1}(x) =$
$f(x) = 5(x + 2)$ Find $f^{-1}(x)$	$x \rightarrow +2 \rightarrow \leftarrow \rightarrow f(x)$ $f^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$f^{-1}(x) =$
$g(x) = \frac{x}{4} + 7$ Find $g^{-1}(x)$	$x \rightarrow \leftarrow \rightarrow g(x)$ $g^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$g^{-1}(x) =$
$f(x) = 5x^2$ Find $f^{-1}(x)$	$x \rightarrow \text{square} \rightarrow \leftarrow \rightarrow f(x)$ $f^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$f^{-1}(x) =$
$h(x) = \frac{1}{x} - 2$ Find $h^{-1}(x)$	$x \rightarrow \leftarrow \rightarrow h(x)$ $h^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$h^{-1}(x) =$
$f(x) = (x - 4)^3$ Find $f^{-1}(x)$	$x \rightarrow \leftarrow \rightarrow f(x)$ $f^{-1}(x) \leftarrow \leftarrow \leftarrow x$	$f^{-1}(x) =$