



# Fill In The Blanks...



## Composite One-Step Functions

Question	Input	1 <sup>st</sup> Function	2 <sup>nd</sup> Function	Output	Answer
$f(x) = 5x$ $g(x) = x + 2$ Find $fg(x)$	$x$ →	+2 →	$\times 5$ →	$fg(x)$	$fg(x) = 5(x + 2)$
$f(x) = 5x$ $g(x) = x + 2$ Find $gf(x)$	$x$ →	$\times 5$ →	+2 →	$gf(x)$	$gf(x) = 5x + 2$
$f(x) = x - 1$ $g(x) = x^2$ Find $fg(x)$	$x$ →	square →	-1 →	$fg(x)$	$fg(x) = x^2 - 1$
$f(x) = x + 3$ $g(x) = \sqrt{x}$ Find $gf(x)$	$x$ →	+3 →	square root →	$gf(x)$	$gf(x) = \sqrt{x + 3}$
$f(x) = \frac{x}{2}$ $g(x) = x + 7$ Find $fg(x)$	$x$ →	+7 →	$\div 2$ →	$fg(x)$	$fg(x) = \frac{x + 7}{2}$
$g(x) = x - 4$ $h(x) = \sqrt{x}$ Find $gh(x)$	$x$ →	square root →	-4 →	$gh(x)$	$gh(x) = \sqrt{x} - 4$
$f(x) = \frac{1}{x}$ $g(x) = x^2$ Find $gf(x)$	$x$ →	reciprocal →	square →	$gf(x)$	$gf(x) = \left(\frac{1}{x}\right)^2$