Function Notation

Find the range value for each of the corresponding domain value.

Evaluate $y = x^2 - 5$ for $x = -3$ | Evaluate $r = -5d + 8$ for $d = 6$ | Evaluate $y = |x| + 5$ for $x = -7$

You may see these functions written in **function notation** where the $y =$ is replaced with $f(x) =$. The two mean exactly the same thing but $f(x) =$ gives you more flexibility and more information.

Evaluate $f(x) = 3x - 5$ for $f(3)$ | Evaluate $g(x) = 3^x$ for $g(4)$ | Evaluate $f(h) = |h| - 4$ for $f(-3)$

Evaluate the following for the following functions: $f(x) = 9 - 4x$ and $g(x) = x^2 - 8$

$f(-2)$ | $f(6)$ | $g(-4)$

Evaluate the following for the following functions: $h(x) = |x + 4| - 5$ and $j(x) = 3^x$

$h(-10)$ | $j(4)$ | $h(11)$

Some Tough Ones

$f(4) + g(-2)$ | $4h(-6)$

Function Notation

Find the range value for each of the corresponding domain value.

Evaluate $y = x^2 - 5$ for $x = -3$	Evaluate $r = -5d + 8$ for $d = 6$	Evaluate $y = |x| + 5$ for $x = -7$
$y = (-3)^2 - 5$	$r = -5(6) + 8$	$y = |-7| + 5$
		$7 + 5$
$\boxed{y = 4}$	$\boxed{r = -22}$	$\boxed{y = 12}$

You may see these functions written in **function notation** where the $y =$ is replaced with $\bigcirc\!\!\!\!f(x) = .$

The two mean exactly the same thing but $f(x) =$ gives you more flexibility and more information.

Evaluate $f(x) = 3x - 5$ for $f(3)$	Evaluate $g(x) = 3^x$ for $g(4)$	Evaluate $f(h) = |h| - 4$ for $f(-3)$
$f(3) = 3(3) - 5$	$g(4) = 3^4$	$f(-3) = |-3| - 4$
$f(3) = 4$	$g(4) = 81$	$f(-3) = -1$

Evaluate the following for the following functions: $f(x) = 9 - 4x$ and $g(x) = x^2 - 8$

$f(-2)$	$f(6)$	$g(-4)$
$f(x) = 9 - 4x$	$f(x) = 9 - 4x$	$g(x) = x^2 - 8$
$f(-2) = 9 - 4(-2)$	$f(6) = 9 - 4 \cdot 6$	$g(-4) = (-4)^2 - 8$
$f\!\overset{x}{(}\!\overset{y}{-2}\!) = 17$	$f(6) = -15$	$g(-4) = 8$

Evaluate the following for the following functions: $h(x) = |x + 4| - 5$ and $j(x) = 3^x$

$h(-10)$	$j(4)$	$h(11)$
$h(x) = |x + 4| - 5$	$j(x) = 3^x$	$h(x) = |x + 4| - 5$
$h(10) = |-10 + 4| - 5$	$j(4) = 3^4$	$h(11) = |11 + 4| - 5$
$h(10) = 1$	$j(4) = 81$	$h(11) = 10$

Some Tough Ones

$f(4) + g(-2)$	$4h(-6)$
$9 - 4(4) + (-2)^2 - 8$	$4 \cdot h(-6)$
$9 - 4(4) + 4 - 8$	$4 \cdot |-6 + 4| - 5$
$9 - 16 + 4 - 8$	$2 - 5$
$\boxed{-11}$	$4(-3)$
	$\boxed{-12}$