Evaluating Expressions Using Variables

A **variable** is a value that stands for an unknown. In the expression $3x + 1$, x is the variable.

To evaluate an expression with a variable, use **substitution** to replace the variable with a number. Then use the order of operations to simplify.

Consider the expression $3x + 1$. You can evaluate this expression for different values of x. Evaluate $3x + 1$ for:

$x = 2$	$x = 4$	$x = 5$
$3(2) + 1$	$3(4) + 1$	$3(5) + 1$
$6 + 1$	$12 + 1$	$15 + 1$
7	13	16

Evaluate each expression for the three different values of the variable.

Evaluate $60 - y$ for:

$y = 15$	$y = 30$	$y = 48$
45	30	12

Evaluate $4h - 6$ for:

$h = 3$	$h = 7$	$h = 11$
6	22	38

Evaluate $14k$ for:

$k = 3$	$k = 8$	$k = 10$
42	112	140

Evaluate $10a \div 5$ for:

$a = 5$	$a = 6$	$a = 9$
10	12	18

Evaluate $4(p + 6)$ for:

$p = 1$	$p = 6$	$p = 12$
28	48	72

Evaluate $72 \div v^2$ for:

$v = 2$	$v = 3$	$v = 6$
18	8	2