

Substitution Principle: Part I

In math, a variable is a letter or symbol used to represent a number. Use the values given for the variables a, b, c and d in each set to evaluate each expression.

1. If... (a = 1 b = 2 c = 0 d = 100)

...then evaluate the expression...	... by substituting the given numbers...	...to find the sum.
$3ab + 3ac$	$(3 \times 1 \times 2) + (3 \times 1 \times 0)$	6
$3ab + 4ac$	$(3 \times _ \times _) + (4 \times _ \times _)$	___
$3abc + 4bcd$	$(3 \times _ \times _ \times _) + (4 \times _ \times _ \times _)$	___
$6abc + 8bcd$	_____	___
$30abc + 40bcd$	_____	___

2. If... (a = 2 b = 4 c = 0 d = 200)

...then evaluate the expression...	... by substituting the given numbers...	...to find the sum.
$3ab + 3ac$	$(3 \times 2 \times 4) + (3 \times 2 \times 0)$	24
$3ab + 4ac$	$(3 \times _ \times _) + (4 \times _ \times _)$	___
$3abc + 4bcd$	$(3 \times _ \times _ \times _) + (4 \times _ \times _ \times _)$	___
$6abc + 8bcd$	_____	___
$30abc + 40bcd$	_____	___

3. If... (a = 2 b = 3 c = 5 d = 200)

...then evaluate the expression...	... by substituting the given numbers...	...to find the sum.
$3ab + 3ac$	$(3 \times 2 \times 3) + (3 \times 2 \times 5)$	48
$3ab + 4ac$	$(3 \times _ \times _) + (4 \times _ \times _)$	___
$3abc + 4bcd$	$(3 \times _ \times _ \times _) + (4 \times _ \times _ \times _)$	___
$6abc + 8bcd$	_____	___
$30abc + 40bcd$	_____	___