

## FOUND IN TRANSLATION

The following are some basic translations from English Language to Math Language that I do when solving PSAT/SAT math problems:

<i>English Words</i>	<i>Math Way to Say It</i>
is, equals, is the same as, has, cost	=
of	x (times)
a number	n
the opposite of the number	- n
a positive number or zero	$n^2$
a multiple of 2, an even number (if n is an integer)	2n
a multiple of 3 (if n is an integer), etc.	3n
a positive fraction	$0 < n < 1$
a negative fraction	$-1 < n < 0$
percent	$\frac{\text{the} - \text{percent} - \text{number}}{100}$
what percent	$\frac{x}{100}$
the percent of increase	$\frac{\text{amountofincrease}}{\text{originalamount}} \times 100$
the percent of decrease	$\frac{\text{amountofdecrease}}{\text{originalamount}} \times 100$
n percent greater than x	$x + \frac{n}{100} x$
n percent less than x	$x - \frac{n}{100} x$
sum	a + b
an example: the sum of two numbers is six	a + b = 6
product	ab
an example: the product of two numbers is ten	ab = 10
difference	a - b
an example: the difference of two numbers is 20	a - b = 20
ratio, fraction, quotient	$\frac{a}{b}, \frac{a}{b} = \frac{2}{3}$
an example: the ratio of a to b is 2 to 3	
average	$\frac{a+b}{2}, \frac{a+b}{2} = 2$
an example: the average of a and b equals 2	
The product of a and b is 1; therefore a and b are reciprocals.	ab = 1
The sum of a and b is 0; therefore a and b are opposites	a + b = 0