

PHRASES MEANING ADDITION

Phrase	Translation
"the sum of 3 and a number"	$3 + x$
"the total of a number and 50"	$x + 50$
"8 more than a number"	$x + 8$
"a number increased by 22"	$x + 22$
"a number plus 10"	$x + 10$
"one number added to another"	$x + y$

PHRASES MEANING SUBTRACTION

Phrase	Translation
"4 subtracted from a number"	$x - 4$
"the difference of 4 and a number"	$4 - x$
"4 decreased by a number"	$4 - x$
"4 less than a number"	$x - 4$
"4 fewer than a number"	$x - 4$
"4 minus a number"	$4 - x$
"4 reduced by a number"	$4 - x$
"4 less a number"	$4 - x$

PHRASES MEANING MULTIPLICATION

Phrase	Translation
"a number multiplied by 5"	$5 \cdot x$ or simply $5x$
(We usually write variable factors last, so we write $5x$ rather than $x5$.)	
"the product of 3 and a number"	$3x$
"one number times another"	xy
" $\frac{2}{3}$ of a number"	$\frac{2}{3}x$
<i>Special multiplication phrases</i>	
"twice a number"	$2x$
"double a number," "a number doubled"	$2x$
"triple a number," "a number tripled"	$3x$

PHRASES MEANING DIVISION

Phrase	Translation
"a number divided by 8"	$x \div 8$ or $\frac{x}{8}$
"the quotient of a number and 8"	$x \div 8$ or $\frac{x}{8}$
"the ratio of a number to 8"	$x \div 8$ or $\frac{x}{8}$
"a number divided into 8"	$x \overline{)8}$ or $8 \div x$
<i>Special division phrase</i>	
"the reciprocal of a number"	$\frac{1}{x}$

KEY VERBS AND VERB PHRASES MEANING "EQUALS"

Phrase	Translation
"equals" or "is equal to"	$=$
"is" or "are" or "was"	$=$
"gives" or "gives us"	$=$
"gives a result of" or "results in"	$=$
"leaves us" or "leaves" or "left"	$=$
"is the same as"	$=$

PHRASES MEANING POWERS OR ROOTS

Phrase	Translation
"the square of a number"	x^2
"the cube of a number"	x^3
"a number raised to the fourth power"	x^4
"the sixth power of a number"	x^6
"The square root of a number"	\sqrt{x}