

# Translating Words Into Algebraic Expressions

## ADDITION

Word or Phrase	Example	Numerical Expression
Sum of	The sum of $-5$ and $3$	$-5+3=-2$
Added to	$6$ added to $3$	$6+3=9$
More than	$7$ more than $-3$	$-3+7=4$
Increased by	$2$ increased by $5$	$2+5=7$
Plus	$3$ plus $14$	$3+14=17$
Greater than	$9$ greater than $-1$	$-1+9=8$

## SUBTRACTION

Word or Phrase	Example	Numerical Expression
Difference between	The difference between $4$ and $-7$	$4-(-7)=11$
Subtracted from	$6$ subtracted from $9$	$9-6=3$
From ..., subtract ...	From $12$ , subtract $8$	$12-8=4$
Less	$6$ less $5$	$6-5=1$
Less than	$6$ less than $5$	$5-6=-1$
Decreased by	$10$ decreased by $3$	$10-3=7$
Minus	$4$ minus $2$	$4-2=2$
Smaller than		
Fewer than		
diminished by		

## MULTIPLICATION

Word or Phrase	Example	Numerical Expression
Product of	The product of $(-2)$ and $5$	$(-2)(5)=-10$
Times	$4$ times $3$	$(4)(3)=12$
Twice (meaning 2 times)	Twice $5$	$2(5)=10$
Of (used with fractions)	One half of ten	$\frac{1}{2}(10)=5$
Percent of	$12$ percent of $-6$	$0.12(-6)=-1.92$
As much as	$\frac{2}{3}$ as much as $30$	$\frac{2}{3}(30)=20$

## DIVISION

Word or Phrase	Example	Numerical Expression
Quotient of	The quotient of $8$ and $2$	$8/2=4$
Divided by	$21$ divided by $3$	$21/3=7$
Ratio of	The ratio of $2$ and $3$	$2/3$

## EQUALITY

<b>Substitute any of these words with an equals(=) sign:</b>		
<b>are</b>	<b>A result of</b>	<b>equals</b>
<b>is</b>	<b>yields</b> <b>is equal to</b>	<b>will be</b>

## UNKNOWN VARIABLE

If a quantity is unknown, substitute a letter such as “x” for an unknown amount, a number, a value.
<b>Example: Three times a number minus six is equal to twenty seven</b> <b>MEANS</b> <b><math>3x - 6 = 27</math></b>