



TRANSLATING ENGLISH PHRASES INTO ALGEBRAIC EXPRESSIONS

<u>ENGLISH PHRASES</u>	<u>ALGEBRAIC EXPRESSIONS</u>
Ten more than a number.....	$x + 10$
A number added to five.....	$5 + x$
<u>A number increased by thirteen.....</u>	<u>$x + 13$</u>
Four less than ten.....	$10 - 4$
Six less than a number.....	$x - 6$
A number decreased by seven.....	$x - 7$
The difference between a number and three.....	$x - 3$
<u>The difference between three and a number.....</u>	<u>$3 - x$</u>
Twice a number.....	$2x$
Half (of) a number.....	$\frac{1}{2}x$ or $\frac{x}{2}$
A number squared <i>or</i> the square of a number.....	x^2
The square of five more than a number.....	$(x + 5)^2$
Five more than the square of a number <i>or</i> the square of a number, increased by five.....	$x^2 + 5$
Ten percent of a number.....	$0.10x$
<u>Ten times a number.....</u>	<u>$10x$</u>
Quotient of a number and three.....	$\frac{x}{3}$
Quotient of three and a number.....	$\frac{3}{x}$
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Five times the sum of a number and two.....	$5(x + 2)$
<u>Five times the difference of a number and four.....</u>	<u>$5(x + 4)$</u>
Five is three more than a number.....	$5 = x + 3$
The product of two and a number is ten.....	$2x = 10$
One half (of) a number is ten.....	$\frac{1}{2}x = 10$
Ten less than eight times a number is five more than the number.....	$8x - 10 = x + 5$
<u>The sum of five times a number and ten is equal to the product of 15 and the number.....</u>	<u>$5x + 10 = 15x$</u>
The sum of two consecutive integers.....	$x + (x + 1)$
The sum of two consecutive even integers.....	$x + (x + 2)$
The sum of two consecutive odd integers.....	$x + (x + 2)$
The sum of the squares of two consecutive integers.....	$x^2 + (x + 1)^2$
The sum of the cubes of two consecutive integers.....	$x^3 + (x + 1)^3$



TRANSLATING ENGLISH TERMS INTO ALGEBRAIC OPERATORS

Accumulate.....+	Fraction ÷	Quotient (of).....÷
Add, add up, added to, addition, additional.....+	Fraction of.....×	Raise, raised by, rise.....+
Alike.....=	Gain.....× or +	Ratio (of).....÷
Also.....+	Gives (a result of), giving.....=	Reciprocal (of).....÷
Altogether.....+	Go (went) up.....+	Reduce, reduce(d) by.....-
Amounts to.....=	Go (went) up by a factor of.....×	Reduce(d) by a factor of.....÷
Amplify, amplified by.....×	Greater (than).....+	Represents.....=
And.....+	Grew by, grow by.....+	Result (is), results (are), results in=
Appreciate.....+	Halved.....÷	Same (result) as.....=
Are.....=	Identical to.....=	Smaller (than).....-
Area.....×	In addition (to).....+	Smaller by a factor of.....÷
Balances.....=	In all.....+	Shorten (by), shorter (than).....-
Bigger (than).....+	In excess.....+	Subdivide.....÷
Coincides (with).....=	Increased (by), increment.....+	Subtract, subtracted from.....-
Combine(d).....+	Increase(d) by a factor of.....×	Sum (of), summation.....+
Corresponds (to).....=	Intensified by.....×	Take away, take from.....-
Cut (by).....-	Interest on.....×	Tally (up).....+
Cut by a factor of.....÷	Is (equal).....=	Thrice.....×
Decline, declined by.....-	Less (than).....-	Times, times as much, times larger, times more, times older.....×
Decline(d) by a factor of.....÷	Larger (than).....+	Times less, times smaller, times younger.....÷
Decrease(d) by, decrement.....-	Lengthen (by), longer (than).....+	Together.....+
Decrease(d) by a factor of.....÷	Lower, lowered by.....-	Total (is).....=
Deduct, deducted from.....-	Matches.....=	Total of.....+
Depreciate.....-	Magnified by.....×	Triple(d).....×
Difference (of).....-	Minus.....-	Twice.....×
Diminished (by).....-	More (than).....+	Volume.....×
Diminished by a factor of.....÷	Multiple, multiply, multiplied by×	Was (equal), were (equal).....=
Divide, divided by, divided into.÷	Narrower (than).....-	Wider (than).....+
Double(d).....×	Net.....+	Will be (equal).....=
Dropped by.....-	Of [usually in connection with fractions].....×	... Years older (than).....+
Dropped by a factor of.....÷	Older (than).....+	Yields.....=
Dwindle.....-	On top of.....+	
Equal, equals.....=	Per.....÷	
Equivalent (to).....=	Percent (of).....×	
Exceeds (by).....+	Perimeter.....+	
Factors.....×	Plus.....+	
Fall.....-	Product (of).....×	
Farther.....+	Quadruple(d).....×	
Fewer than.....-	Quarter.....÷	
Find the total.....+	Quantity.....(...)	