

Notes - Writing Expressions

Writing Expressions

VERBAL EXPRESSION - an expression written as a word phrase

Examples:

two plus four a number increased by two

Verbal expressions can be translated to numerical or algebraic expressions by identifying numerical values, variables, and key terms that signal an operation.

ALGEBRAIC EXPRESSION - a combination of variables, numbers, and at least one operation.

Examples:

$5 + n$ $7a$ (means $7 \times a$) $k - 3$

VARIABLE - a placeholder, a letter or symbol, used to represent an unspecified value in mathematical expressions or equations

Suppose you knew that the Panthers scored 35 points in the first half of a game, but you didn't know how many points they scored in the second half. You could use a variable to represent the number of points scored in the second half.

DEFINE THE VARIABLE:



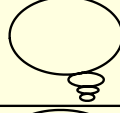

$35 + p$
 $p =$ points in the second half

Review key words for the different operations

Drag word to correct operation (14 words)

ADDITION	SUBTRACTION
MULTIPLICATION	DIVISION

of

Verbal Phrases	Algebraic Expression
9 more than a number the sum of 9 and a number a number plus 9 a number increased by 9 the total of x and 9	Click to reveal 
4 subtracted from a number a number minus 4 4 less than a number a number decreased by 4 the difference of h and 4	
6 multiplied by g 6 times a number the product of g and 6	
a number divided by 5 the quotient of t and 5 divide a number by 5	

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Write a word phrase for each algebraic expression.

Algebraic Expression	Word Phrase
$q + 5$	
$3 - t$	
$y / 5$	
$12x$	

Tips to remember:

- Letters in math are called **variables** because their values **vary**.
- When multiplying a number and a variable, the number is written first. For example: x times 5 is $5x$ not $x5$.
- Don't use subtraction in the wrong order!

For example:

"the difference of 5 and t " and "5 decreased by t "
are translated as $5 - t$
while "5 less than t " and "5 subtracted from t "
are translated as $t - 5$.

Real World Application:

1. Mary earns an allowance of \$5 per week. She also earns \$6 per hour babysitting. Write an expression that would represent the total amount of money she earns in one week.

define the constant: _____

define the variable: _____

expression: _____

Evaluate your expression to determine how much Mary will make if she works for 6 hours.

Real World Application:

1. You have decided to treat yourself to ice cream. "Scoops" has one cone of ice cream for \$3 and each topping is \$1.

define the constant: _____

define the variable: _____

expression: _____

Evaluate your expression to determine how much it will cost to get an ice cream cone with 3 toppings.