Full Name: _____ Date: _____

Expressions

What is it?
Expression is a math phrase with numbers, variables, and/or symbols.

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Examples:
Numerical expressions: 2+5
**Algebraic expressions: 2x+5, 100a+b**
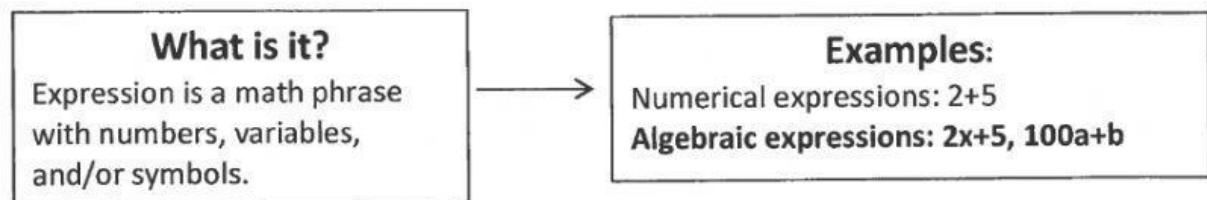
Expressions

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What includes in an algebraic expression?
1. Variables
2. Term
3. Coefficient
4. Constant

What do we do with an expression?
1. Translate verbal rules to expressions:
    (1) Assign variables to represent unknowns
    (2) Use clue/key words
2. Simplify expressions:
    (1) Distribute property
    (2) Collect (combine) like terms
2. Evaluate expressions
    (1) Substitute variables with numbers
    (2) Order of operations: PE$^{M}_{D}$ $^{A}_{S}$

Example:

Coe ents

$2 + 4y -$

Variables   Constant

Terms — 2x, 4y, 9
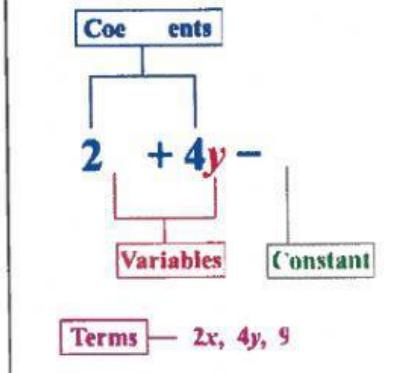
Parts of an expression

Vocabulary	Definition
Variables	Variables are _____ or _____ that represents _____.
How to find it	**Example**
Look for <u>letters</u> or <u>symbols</u> like x, y, z, a, b, c,……	2y+5

Vocabulary	Definition
Terms	Terms are the parts of an expression that are being _____ or_____.
How to find it	**Example**
Looked of the parts of an expression that are separated by "+" or "–".	2x+4y-8-c Terms:

Vocabulary	Definition
Coefficients	1. Coefficients are _____ used to _____. 2. Coefficient takes the _____ in front of it. 3. If an coefficient is not written it is invisible _____.
How to find it	**Example**
Look for TERMs of an expression that have numbers in front of variables.	2x-8-c The <u>coefficient</u> of 2x is _____. The <u>coefficient</u> of –c is _____.

Vocabulary	Definition
Constant	1. Constants are the _____ of an expression with _____. 2. Take the _____ in from of it.
How to find it	**Example**
Look for TERMs of an expression that have NO variable.	2x-8-c The <u>constant</u> of the expression is ____.

DO NOW!

1. Identify **terms** of algebraic expressions.

Expressions	# of Terms	List Terms
(1) $3x+2y+4z+8$	_____	_____
(2) $5y+6z$	_____	_____
(3) c^4	_____	_____
(4) $9x^2 - 4$	_____	_____
(5) $6j^4 + 5f^5 + 11$	_____	_____
(6) $7b-1$	_____	_____
(7) 9	_____	_____

2. Identify the **terms, coefficient, variable, exponent,** and **constant** as indicated.

Expression	Coefficient/s	Variable	Exponent	Constant
(1) $2k - 5$	_____	_____	_____	_____
(2) $5y+6z$	_____	_____	_____	_____
(3) $n^3 + 23$	_____	_____	_____	_____
(4) $5(-n)^3$	_____	_____	_____	_____
(5) $12q^2 + q - 2$	_____	_____	_____	_____
(6) $\frac{4}{5}r^2 - 3^2$	_____	_____	_____	_____