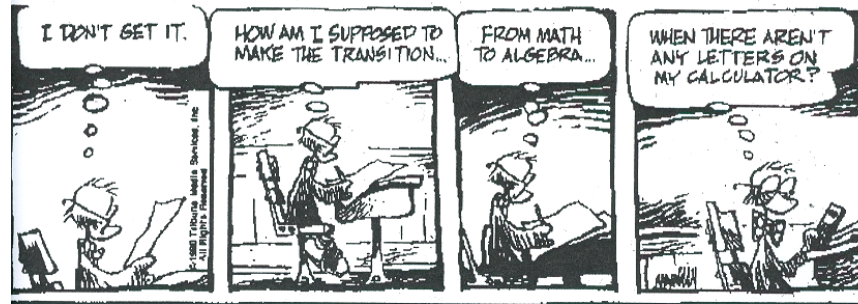


LESSON 5

Algebraic Expressions

SHOE



An algebraic expression is just a mathematical sentence made up of....

* * *

A symbol (letter) used to replace a number is called a variable. $5^{-2} x y z + -x \div 5x$

Term ~ part that makes up an algebraic expression It can be composed of:

numbers only

5

variables

x

combination

$5abc$

A term only with a number is called a constant term (value does not change).

$5x + 2$ or $5x - 3$

Coefficient ~ the number in front of the variable or variables of a term

$5x + 2$

“Like” terms ~ two or more terms are called “like terms” if they have the same variables raised to the same exponents.

$5a - 2a$

$7x^2y^3 + 2x^2y^3$

All constants are “like terms”.

$5x - 4 + 2$

Order of Expressions

Number first than alphabetically

(a)(5)(c)(b)
(5) (a) (b) (c)

$-2 + 5x - 2z + 3y$
 $5x + 3y - 2z - 2$

Clean Algebra

Monomial - algebraic expression consisting of only one term.

examples:

15 *chunk*

$-9x$

$18x^2$

$-5abc$

Degree Of A Monomial

For one variable: same as exponent

x^2 \rightarrow 2nd degree

For more than one variable: sum of the exponents of all its variables.

x^3y^5 \rightarrow 8th degree

For a constant: the degree is always zero.

$9x^0 = 0$ degree

What about this????

3rd degree \circledast

variable

constant

5
terms

$$5x - 3y + z + 14 - 2z$$

like terms

z only

coefficient

5, -3, +1
-2

order of expressions

$$+2y \quad -5x \\ -17$$


$$-5x + 2y - 17$$

$$(s)(7)(u)(t)$$


$$7stu$$

Degree of Monomial

-198  0

 x^5 5

$3a^2b^3$  5

 $7xyz$ 3

