

Grade 8
Unit 2 Vocabulary

Equations and Inequalities

8.8A, 8.8B, 8.8C, 8.8D

Expression – One or a group of terms and may include variables, constants, operators and grouping symbols.

Math problem without an equal sign.

$$(3 + 5) \times 7$$

Equation – A mathematical statement composed of algebraic and/or numeric expressions set equal to each other.

Math problem with an equal sign.

$$16 - 2t = 5t + 9$$

Inequality – A mathematical statement composed of algebraic and/or numeric expressions set apart by an inequality symbol.

A math problem with a $<$, $>$, \leq or \geq symbol instead of $=$.

$$\begin{aligned} n + 5 &> 10 \\ n + 5 - 5 &> 10 - 5 \\ n &> 5 \end{aligned}$$

Solution: all numbers greater than 5

Variable – A letter or symbol that represents a number.

A letter in a math problem.

$$1 + x = 3$$

↑
variable

Coefficient – A number that is multiplied by a variable(s).

The number in front of the variable.

$$5x + 3$$

↖
coefficient

Constant– A fixed value that does not appear with a variable(s).

The number that is not with a variable.

$$\boxed{} + 5x + 7 = 12$$

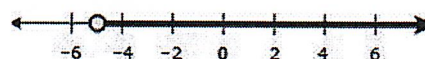
$\boxed{}$ \swarrow \nearrow
 Constants

Solution set– A set of all values of the variable(s) that satisfy the equation or inequality.

List of ALL possible answers for a problem.

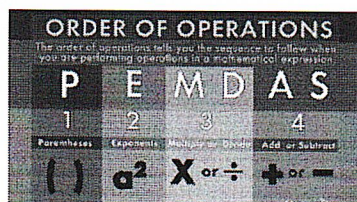
$$x > -5$$

$$x = \{-4, -3, -2, \dots\}$$



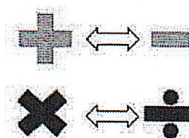
Order of Operations– The rules of which calculations are performed first when simplifying an expression.

Steps for solving multi-step problems.



Inverse Operations– The operation that reverses the effect of another operation.

Opposite operations



Distributive Property – Says that multiplying a number by a group of numbers added together is the same as doing each multiplication separately.

Multiplying an outside number by each number in parenthesis

DISTRIBUTIVE PROPERTY EXPLAINED!

$$4(x+3) = 4x+12$$