§ 1.2 Linear Equations in One Variable

Equation :   A statement that two expressions are equal.

Example: $x + 2 = 9$

Solve: Find <u>all</u> numbers that makes the equation a true statement.

Solution: <u>a</u> number that makes the equation a true statement.

Solution Set: <u>all</u> the numbers that make the equation a true

statement.

Identity equation :   An equation that is true for <u>every</u> real
number in the domain of the variable in the
equation.

Conditional equation : an equation that is satisfied (A Solution) by
some numbers but not by others.

Contradiction: An equation which is false for every value of the
variable in the equation.

Linear equation in one variable:

an equation that can be written in the form:
ax + b = 0,   where a ≠ 0

Example 1: $3x - 6 = 0$ Example 2: $6(x - 1) + 4 = 3(7x + 1)$

Solving equations with fractions in them?

Clear the equation of all fractions. This is done by multiplying both members of the equation by the <u>Least Common Denominator</u> of <u>all</u> the fractions in the equation .

Example: $\dfrac{x}{3} + \dfrac{3x}{4} = 2$