

# LECTURE

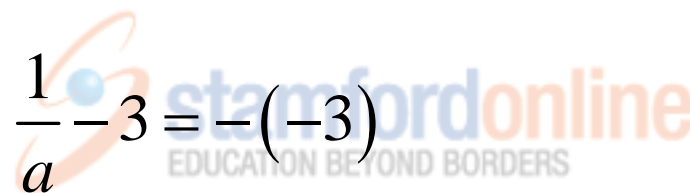


# Solving Equations and Inequalities

## ❖ Solving linear equation with one unknown

Example:

$$4a = 6 + a$$

$$\frac{1}{a} - 3 = -(-3)$$


(Remarks: linear equation is an equation in which the highest degree of power of the unknown is 1; if the power of the unknown is 2, it is a quadratic equation.)

## ❖ Solving linear equation with two unknowns

Example:  $a + 4b = 6$

$$-2a = 3 + 5b$$

(Remarks: when two unknowns are involved in an equation, it is called a simultaneous equation. Using simultaneous method, we can find the value of the two unknowns.)

$$a + 4b = 6 \dots\dots (1)$$

$$-2a = 3 + 5b \dots\dots(2)$$

$$(1) \times 2 : 2a + 8b = 12 \dots\dots(3)$$

$$(2) + (3) : 8b = 15 + 5b \Rightarrow 3b = 15 \Rightarrow b = 5, a = -14$$



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