BODMAS = Brackets	**of**	**Division**	**Multiplicatin**		**Addition**	**Subtraction**
PEMDAS = Parentheses		Exponent	Multiplication	Division	Addition	Subtraction
PEMDAS = Please		Excuse	My	Dear	Aunt	Sally

* = multiplication

JUST FOLLOW THE NEHA-KOMAL METHOD OF FOLLOWING THE COLORS

The equation for a straight line can be written as

$$y = (m)x + (b) \quad \text{..... (1)}$$

$$y = (slope)x + (intercept\ on\ y-axis) \quad \text{..... (1b)}$$

EXAMPLE#1:

Therefore, $y = 5x + 3$ ..... *(2)*

can also be written as

$$y = (5)x + (3) \quad \text{..... (2b)}$$

The above equation has the format of equation (1)

⇨ $y = (m)x + (b)$ ..... *(1)*

⇨ $y = (slope)x + (intercept\ on\ y-axis)$ ..... *(1b)*

Comparing equation (2b) with (1) & (1b), we can see that

the slope is $= 5$

and the intercept is $= 3$

The equation for a straight line can be written as

$$y = (m)x + (b) \quad \text{..... (1)}$$
$$y = (slope)x + (intercept\ on\ y-axis) \quad \text{..... (1b)}$$

EXAMPLE#2:

Similarly, another equation

$$2y = 5x + 3 \quad \text{..... (3)}$$

can also be written as

$$\Rightarrow \quad 2y = (5)x + (3)$$

We need to re-arrange the above equation, such that it is of the form (1).

i.e. We need to re-arrange the above equation, such that we end up with only "y" on the LHS (Left Hand Side). To do that, we will multiply both sides of the equation with "$\frac{1}{2}$".

Multiplying both sides of the equation with the same number does not change the equation.

$$\Rightarrow \quad 2y \times \frac{1}{2} = \{(5)x + (3)\} \times \frac{1}{2}$$
$$\Rightarrow \quad 2y \times \frac{1}{2} = \{(5)x + (3)\} \times \frac{1}{2}$$
$$\Rightarrow \quad 2y \times \frac{1}{2} = \{\left(5 \times \frac{1}{2}\right)x + \left(3 \times \frac{1}{2}\right)\}$$
$$\Rightarrow \quad 1y \times \frac{1}{1} = \{\left(5 \times \frac{1}{2}\right)x + \left(3 \times \frac{1}{2}\right)\}$$
$$\Rightarrow \quad 1y \times \frac{1}{1} = \{\left(\frac{5 \times 1}{2}\right)x + \left(\frac{3 \times 1}{2}\right)\}$$
$$\Rightarrow \quad y = \left\{\left(\frac{5}{2}\right)x + \left(\frac{3}{2}\right)\right\}$$
$$\Rightarrow \quad y = \left(\frac{5}{2}\right)x + \left(\frac{3}{2}\right)$$
$$\Rightarrow \quad y = \left(\frac{5}{2}\right)x + \left(\frac{3}{2}\right) \quad \text{..... (3b)}$$

Now the above equation has the format of equation (1)

$$\Rightarrow \quad y = (m)x + (b) \quad \text{..... (1)}$$
$$\Rightarrow \quad y = (slope)x + (intercept\ on\ y-axis) \quad \text{..... (1b)}$$

Comparing equation (3b) with (1) & (1b), we see that

the slope is $= \frac{5}{2}$

and the intercept is $= \frac{3}{2}$

The equation for a straight line can be written as

$$y = (m)x + (b) \quad \text{..... (1)}$$
$$y = (slope)x + (intercept\ on\ y-axis) \quad \text{..... (1)}$$

EXAMPLE#3:

Similarly, another equation

$$2y = 5x - 3 \quad \text{..... (4)}$$

can also be written as

$$\Rightarrow \quad 2y = (5)x - (3)$$

We need to re-arrange the above equation, such that it is of the form (1).

i.e. We need to re-arrange the above equation, such that we end up with only "y" on the LHS (Left Hand Side). To do that, we will multiply both sides of the equation with "$\frac{1}{2}$".

Multiplying both sides of the equation with the same number does not change the equation.

$$\Rightarrow \quad 2y \times \frac{1}{2} = \{(5)x - (3)\} \times \frac{1}{2}$$
$$\Rightarrow \quad 2y \times \frac{1}{2} = \{(5)x - (3)\} \times \frac{1}{2}$$
$$\Rightarrow \quad 2y \times \frac{1}{2} = \left\{\left(5 \times \frac{1}{2}\right)x - \left(3 \times \frac{1}{2}\right)\right\}$$
$$\Rightarrow \quad 1y \times \frac{1}{1} = \left\{\left(5 \times \frac{1}{2}\right)x - \left(3 \times \frac{1}{2}\right)\right\}$$
$$\Rightarrow \quad 1y \times \frac{1}{1} = \left\{\left(\frac{5 \times 1}{2}\right)x - \left(\frac{3 \times 1}{2}\right)\right\}$$
$$\Rightarrow \quad y = \left\{\left(\frac{5}{2}\right)x - \left(\frac{3}{2}\right)\right\}$$
$$\Rightarrow \quad y = \left(\frac{5}{2}\right)x - \left(\frac{3}{2}\right)$$
$$\Rightarrow \quad y = \left(\frac{5}{2}\right)x - \left(\frac{3}{2}\right)$$
$$\Rightarrow \quad y = \left(\frac{5}{2}\right)x + \left(-\frac{3}{2}\right) \quad \text{..... (4b)}$$

Now the above equation has the format of equation (1)

$$\Rightarrow \quad y = (m)x + (b) \quad \text{..... (1)}$$
$$\Rightarrow \quad y = (slope)x + (intercept\ on\ y-axis) \quad \text{..... (1b)}$$

Comparing equation (4b) with (1) & (1b), we see that

the slope is $= \frac{5}{2}$

and the intercept is $= -\frac{3}{2}$
