| BODMAS $=$ Brackets of <br> PEMDAS = Parentheses <br> PEMDAS = Please | Division <br> Exponen <br> Excuse | Multiplicatin <br> Multiplication <br> My | Division Dear | Addition <br> Addition Aunt | Subtraction <br> Subtraction <br> 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 $\mathrm{+}$ | ........ | , | ,........... |  |
| $y$ | $=($ slo | pe) $x+($ | rcept | y - | axis)... |  |

```
EXAMPLE#1:
Therefore, y = 5x+3 ..................................................................(2)
can also be written as
                    y = (5) x+(3)
The above equation has the format of equation (1)
m = (m)x+(b)..................................................................(1)
y y = (slope)x+(\mathrm{ intercept on y - axis)........................ (1b)}
```

Comparing equation (2b) with (1) \& (1b), we can see that
the slope is $=5$
and the intercept is $=3$

| BODMAS $=$ Brackets of | Division | Multiplicatin |  | Addition | Subtraction |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PEMDAS $=$ Parentheses | Exponent | Multiplication | Division | Addition | Subtraction |
| PEMDAS $=$ Please | Excuse | My | Dear | Aunt | Sally | JUST FOLLOW THE NEHA-KOMAL METHOD OF FOLLOWING THE COLORS

The equation for a straight line can be written as

$$
\begin{array}{ll}
y & =(m) x+(b) \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~(1) ~  \tag{1}\\
y & =(\text { slope }) x+(\text { intercept on } y-\text { axis)............................ (1b) } \\
y
\end{array}
$$

## EXAMPLE\#2:

Similarly, another equation

$$
\begin{equation*}
2 y=5 x+3 \tag{3}
\end{equation*}
$$

can also be written as

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

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 "1, ".
Multiplying both sides of the equation with the same number does not change the equation.

$$
\begin{array}{llll}
\Rightarrow & 2 y \times \frac{1}{2}= & \{(5) x & +(3)\} \times \frac{1}{2} \\
\Rightarrow & 2 y \times \frac{1}{2}= & \{(5) x & +(3)\} \times \frac{1}{2} \\
\Rightarrow & 2 y \times \frac{1}{2}= & \left\{\left(5 \times \frac{1}{2}\right) x+\left(3 \times \frac{1}{2}\right)\right\} \\
\Rightarrow & 1 y \times \frac{1}{1}= & \left\{\left(5 \times \frac{1}{2}\right) x+\left(3 \times \frac{1}{2}\right)\right\} \\
\Rightarrow & 1 y \times \frac{1}{1}= & \left\{\left(\frac{5 \times 1}{2}\right) x+\left(\frac{3 \times 1}{2}\right)\right\} \\
\Rightarrow & y & = & \left\{\left(\frac{5}{2}\right) x\right. \\
\Rightarrow & y & \left.+\left(\frac{3}{2}\right)\right\} \\
\Rightarrow & y & = & \left(\frac{5}{2}\right) x  \tag{3b}\\
\Rightarrow & y & = & \left(\frac{5}{2}\right) x
\end{array}+\left(\frac{3}{2}\right) . \ldots \ldots . . . . .
$$

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

| $\Rightarrow$ | $y$ |  | (m) $x$ | + (b) | (1) | 1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\Rightarrow$ | $y$ |  | (slope) $x$ | + (in |  | 1b |

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

| the slope is | $=\frac{5}{2}$ |
| ---: | :--- |
| and the intercept is | $=\frac{3}{2}$ |


| BODMAS $=$ Brackets of | Division | Multiplicatin |  | Addition | Subtraction |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PEMDAS $=$ Parentheses | Exponent | Multiplication | Division | Addition | Subtraction |
| PEMDAS $=$ Please | Excuse | My | Dear | Aunt | Sally | JUST FOLLOW THE NEHA-KOMAL METHOD OF FOLLOWING THE COLORS

The equation for a straight line can be written as

$$
\begin{align*}
& y=(m) x+(b)  \tag{1}\\
& y \quad=(\text { slope }) x+\text { (intercept on } y \text {-axis).......................... (1) }
\end{align*}
$$

## EXAMPLE\#3:

Similarly, another equation

$$
\begin{equation*}
2 y=5 x-3 \tag{4}
\end{equation*}
$$

can also be written as

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

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 "1, ".
Multiplying both sides of the equation with the same number does not change the equation.

$$
\begin{align*}
& \Rightarrow \quad 2 y \times \frac{1}{2}=\quad\{(5) x \quad-(3)\} \times \frac{1}{2} \\
& \Rightarrow \quad 2 y \times \frac{1}{2}=\{(5) x \quad-(3)\} \times \frac{1}{2} \\
& \Rightarrow \quad 2 y \times \frac{1}{2}=\left\{\left(5 \times \frac{1}{2}\right) x-\left(3 \times \frac{1}{2}\right)\right\} \\
& \Rightarrow \quad 1 y \times \frac{1}{1}=\quad\left\{\left(5 \times \frac{1}{2}\right) x-\left(3 \times \frac{1}{2}\right)\right\} \\
& \Rightarrow \quad 1 y \times \frac{1}{1}=\quad\left\{\left(\frac{5 \times 1}{2}\right) x-\left(\frac{3 \times 1}{2}\right)\right\} \\
& \Rightarrow \quad y=\left\{\left(\frac{5}{2}\right) x \quad-\left(\frac{3}{2}\right)\right\} \\
& \Rightarrow \quad y=\left(\frac{5}{2}\right) x \quad-\left(\frac{3}{2}\right) \\
& \Rightarrow \quad y=\left(\frac{5}{2}\right) x \quad-\left(\frac{3}{2}\right) \\
& \Rightarrow y=\left(\frac{5}{2}\right) x+\left(-\frac{3}{2}\right) \text {. }  \tag{4b}\\
& \text { Now the above equation has the format of equation (1) }
\end{align*}
$$

$$
\begin{aligned}
& \Rightarrow \quad y \quad \text { (slope) } x \quad+\text { (intercept on } y \text {-axis).................. (1b) }
\end{aligned}
$$

Comparing equation (4b) with (1) \& (1b), we see that
the slope is $\quad=\frac{5}{2}$
and the intercept is $=-\frac{3}{2}$

