4-4.4-23

EE24BTECH11022 - Eshan Sharma

Question:
If the graph of a pair of lines $x - 2y + 3 = 0$ and $2x - 4y = 5$ be drawn, then what type of lines are drawn?
Solution:

Symbol	Value	Description
L1	$x - 2y + 3 = 0$	line1
L2	$2x - 4y = 5$	line2

TABLE 0: Variables Used

$$\text{slope of } \mathbf{L1} = \left(\frac{1}{2}\right) \tag{0.1}$$

$$\text{slope of } \mathbf{L2} = \left(\frac{2}{4}\right) = \left(\frac{1}{2}\right) \tag{0.2}$$

As calculated, the slope of the lines are same and therefore, they are parellel. Also; From the figure shown below, it can be inferred that the lines given $x-2y+3 = 0$ and $2x-4y = 5$ are parallel to each other.

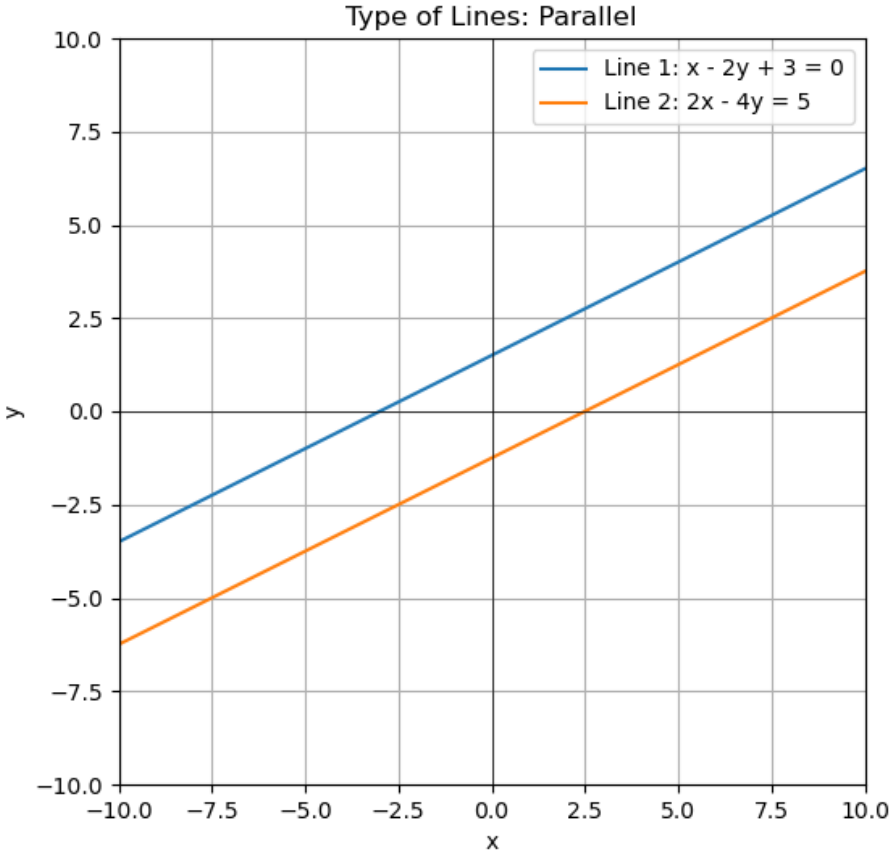

Fig. 0.1: plot of given lines **L1** and **L2**