

## Equation of a Line

Slope Intercept: L2S3

### Part - A

Write the equation of the line whose slope and the point through which it passes are given. Express the equation in slope-intercept form.

1)  $\left(\frac{4}{7}, \frac{1}{3}\right)$  and slope  $m = 6$

2)  $\left(\frac{5}{6}, -\frac{8}{5}\right)$  and slope  $m = 9$

3)  $\left(-\frac{7}{2}, -9\right)$  and slope

slope  $m = \frac{4}{3}$

5)  $\left(\frac{5}{3}, -\frac{2}{3}\right)$  and slope

slope  $m = -\frac{3}{5}$

1) Find the equation

slope is  $\frac{2}{3}$ .

2) Find the equation of the tangent whose slope is 8 and touches the circle at the point  $\left(-\frac{6}{5}, 4\right)$ .

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Equation of a Line

Slope Intercept: L2S3

Part - A

Write the equation of the line whose slope and the point through which it passes are given. Express the equation in slope-intercept form.

1)  $(\frac{4}{7}, \frac{1}{3})$  and slope  $m = 6$

$y = 6x - \frac{65}{21}$

2)  $(\frac{5}{6}, -\frac{8}{5})$  and slope  $m = 9$

$y = 9x - \frac{91}{10}$

3)  $(-\frac{7}{2}, -9)$  and slope  $m = -5$

$y = -5x - \frac{53}{2}$

4)  $(\frac{1}{5}, \frac{5}{5})$  and slope  $m = \frac{4}{3}$

5)  $(\frac{5}{3}, -\frac{2}{3})$  and slope  $m = -\frac{3}{5}$

$y = \frac{7}{2}x - \frac{13}{2}$

1) Find the equation of the line whose slope is  $\frac{2}{3}$  and passes through the point  $(\frac{1}{3}, \frac{1}{6})$ .

$y = \frac{2}{3}x - \frac{1}{6}$

2) Find the equation of the tangent whose slope is 8 and touches the circle at the point  $(\frac{6}{5}, 4)$ .

$y = 8x + \frac{68}{5}$

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