

Find both intercepts & slope of

$$2x + 3y = 5$$

method I

Put in slope-intercept form

$$y = \frac{-2x}{3} + \frac{5}{3}$$

Slope $-\frac{2}{3}$ by insp.

y-int $\frac{5}{3}$ by insp.

For x-int

Let $y=0$, solve for x

$$0 = \frac{-2x}{3} + \frac{5}{3}$$

$$0 = -2x + 5$$

$$x = \frac{5}{2}$$

x int is $\frac{5}{2}$

method II

$$2x + 3y = 5$$

x-int: let $y=0$

$$2x + 3(0) = 5$$

$$x = \frac{5}{2}$$

y-int let $x=0$

$$2(0) + 3y = 5$$

$$y = \frac{5}{3}$$

For slope get slope-intercept form

Solve for y

$$2x + 3y = 5$$

$$3y = -2x + 5$$

$$y = \frac{-2x}{3} + \frac{5}{3}$$

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

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$$[1] \quad 2x + 3y = 5$$

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method II

$$2x + 3y = 5$$

x-int: Let $y=0$

$$2x + 3(0) = 5$$

$$x = \frac{5}{2}$$

y-int Let $x=0$

$$2(0) + 3y = 5$$

$$y = \frac{5}{3}$$

For slope get slope-intercept form

Solve for y

$$2x + 3y = 5$$

$$3y = -2x + 5$$

$$y = \frac{-2x}{3} + \frac{5}{3}$$

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