

Warm-up

Name Slope & y-intercept for each

1) $y = -\frac{2}{3}x + 1$ 2) $y = 5x + 42$ 3) $y = 17 + \frac{1}{2}x$

$m = -\frac{2}{3}$

$m = 5$

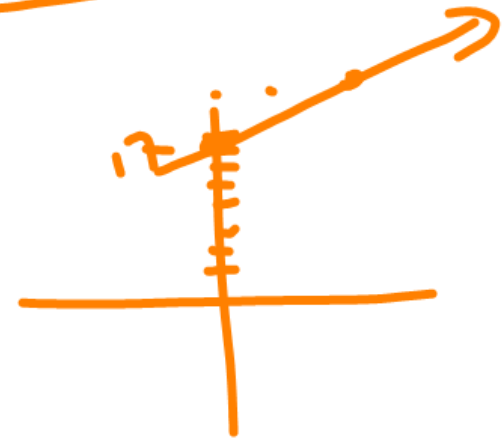
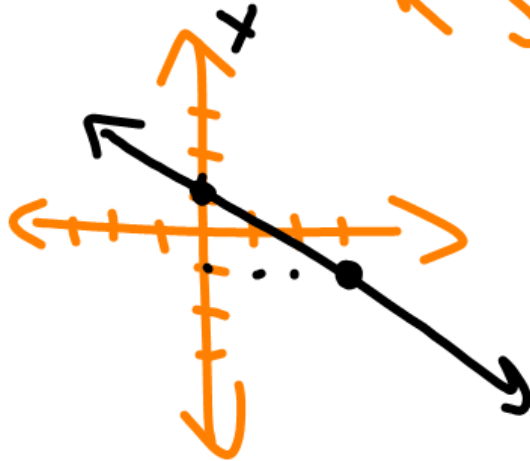
$m = \frac{1}{2}$

y-int = $\textcircled{1}$

y-int = $\textcircled{42}$

y-int = $\textcircled{17}$

Start at



2.3 Intercepts

$y = mx + b$ is Slope-Intercept Form

$Ax + By = C$ is Standard Form



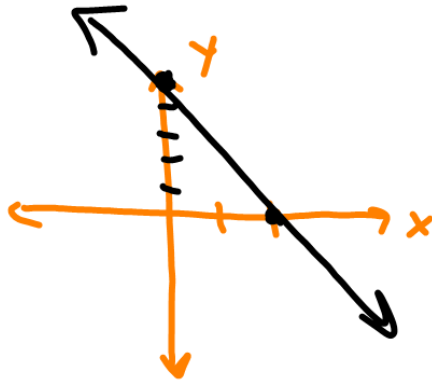
- * to find where cross y -axis, cover x & solve for y
- * to find where cross x -axis, cover y & solve for x .

Example - Graph

$$5x + 2y = 10 \text{ using } x \text{ \& } y \text{ intercepts}$$

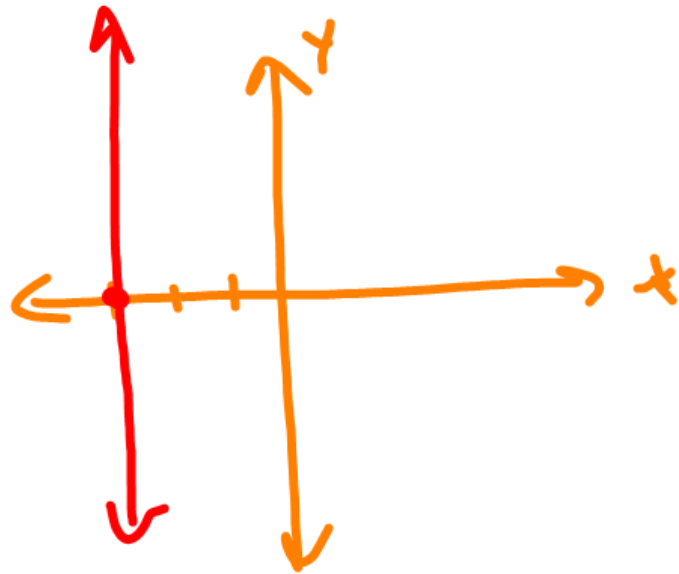
x-intercept: Cover y ... $\frac{5x}{5} = \frac{10}{5}$ $x = 2$
 $(2, 0)$

y-intercept: Cover x ... $\frac{2y}{2} = \frac{10}{2}$ $y = 5$
 $(0, 5)$



$$x = -3$$

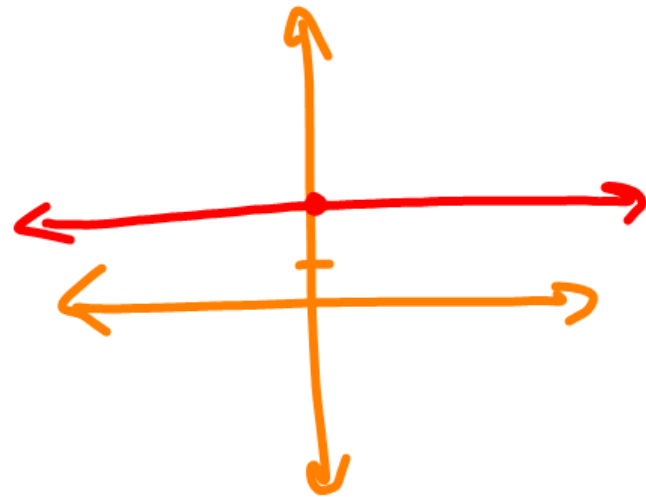
* only cross x-axis



vertical line
undefined slope

$$y = 2$$

* only cross y-axis



hor. zontal line
0 Slope