

Common: Identify the slope & start place for each line
1) $y = -\frac{2}{3}x + 1$ 2) $y = 5x + 42$ 3) $y = \frac{1}{2}x - 17$

2.3b Intercepts

$y = mx + b$ is slope-intercept form (solved for y)
 $Ax + By = C$ is Standard Form (x & y on same side)

To graph in S.F., use the intercepts

x-int @ $(x, 0)$, let $y = 0 \dots Ax + B(0) = C$

y-int @ $(0, y)$, let $x = 0 \dots A(0) + By = C$

Example - Graphing

$$5x + 2y = 10$$

1) S.I. form or S.F.?

2) Find x-int. - plug 0 in for y

$$5x + 2(0) = 10$$

Form $(x, 0)$

$$5x = 10$$

$$x = 2, y = 0$$

$(2, 0)$

3) Find y-int - plug 0 in for x

$$5(0) + 2y = 10$$

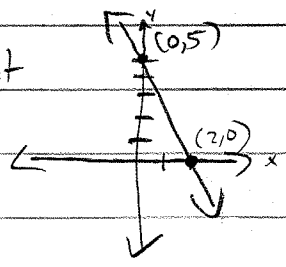
Form $(0, y)$

$$2y = 10$$

$$y = 5, x = 0$$

$(0, 5)$

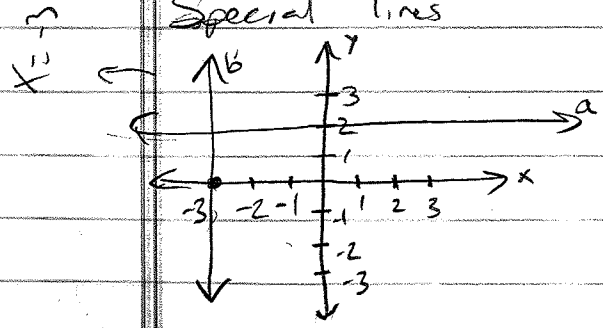
4) Plot



Special lines

a) Horizontal line ... x changes but y always = 2
so equation is $y = 2$

b) Vertical line ... y changes but x always = -3
so equation is $x = -3$



P 93: 23-290,
30, 31-390
43, 45, 49