Algebra I

8-4
Slope/Intercept Form
of a Line

Slope / Intercept form of a Line -

→ slope

$y = \boxed{m}x + b$

↳ y-intercept - point where the
line crosses the y-axis
always $(0, b)$
- starting point

y has to be
on a side
by itself

Find the slope and the y-intercept of each line. (pg 368)

1) $y = 2x + 1$
m = 2
b = 1 ; (0,1)

7) $y = 8 - 2x$
m = -2
b = 8 ; (0,8)

9) $y = x + 0$
m = 1
b = 0 ; (0,0)
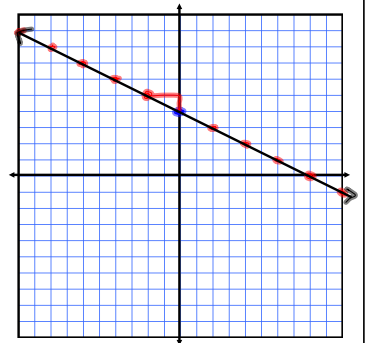

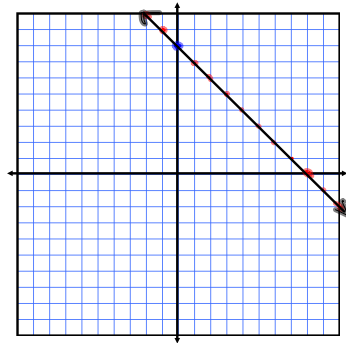Graph each of the following lines.

17) $y = -\frac{1}{2}x + 4$
m = $-\frac{1}{2}$ rise/run
b = 4 ; (0,4)

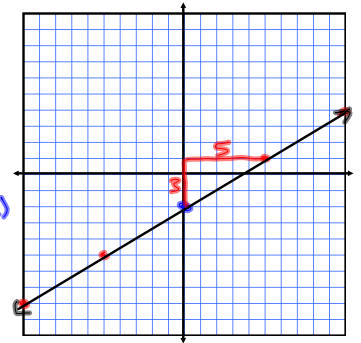
Graph each of the following lines.

19) $x + y = 8$
x - x + y = -x + 8
y = -x + 8
m = -1 = -$\frac{1}{1}$
b = 8 ; (0,8)

Graph each of the following lines.

25) $3x - 5y = 10$
3x - 3x - 5y = -3x + 10
$\frac{-5y}{-5} = \frac{-3x}{-5} + \frac{10}{-5}$
y = $\frac{3}{5}$x - 2
m = $\frac{3}{5}$
b = -2 ; (0,-2)

Pg 368

2-28 even

8 graphs
Starting at #14