

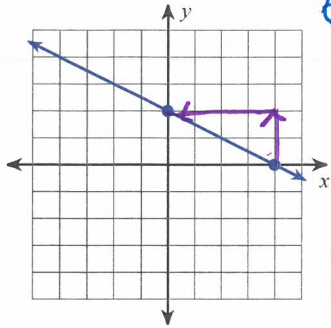
Chapter 4 Practice Test (2023)

Date _____ Period _____ based on Htest _____

PAGE 1 - 4 PTS EACH

Find the slope. Clearly show work AND use the correct variable notation. **MUST WRITE $m =$ FOR EACH LINE!**

1)

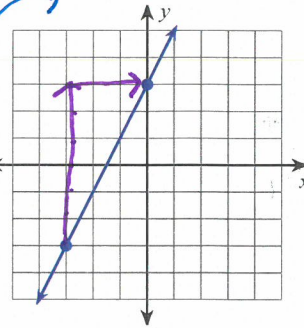


$$m = \frac{2}{-4}$$

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

$$m = \frac{\text{Rise}}{\text{Run}}$$

2)



$$m = \frac{6}{3}$$

$$m = 2$$

3) $(-10, -2), (15, -7)$

$$m = \frac{-7 - (-2)}{15 - (-10)} = \frac{-5}{25}$$

$$m = -\frac{1}{5}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x}$$

4) $(20, 10), (13, -11)$

$$m = \frac{-11 - 10}{13 - 20} = \frac{-21}{-7}$$

$$m = 3 \text{ or } \frac{3}{1}$$

*** SLOPE IS A SIMPLIFIED IMPROPER FRACTION !!**

Rewrite in slope-intercept form. State the slope and yintercept using the correct variable notation.

5) $x - 8y = 24$

$$\begin{array}{r} -x \quad -x \\ \hline -8y = -x + 24 \\ \hline -8 \quad -8 \quad -8 \end{array}$$

$$y = \frac{1}{8}x - 3$$

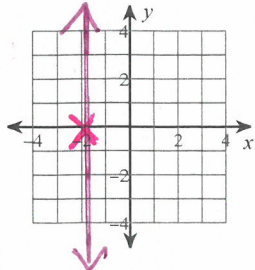
$$\text{S/I Form } y = mx + b$$

$$m = \frac{1}{8}$$

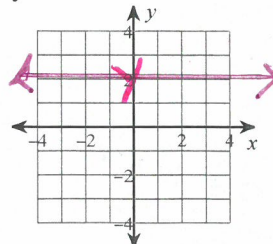
$$b = -3$$

Sketch the graph of the line using any method

6) $x = -2$



7) $y = 2$



ALL LINES Need ARROWS

Graph: **USE TABLE METHOD** (order pairs must be integers):

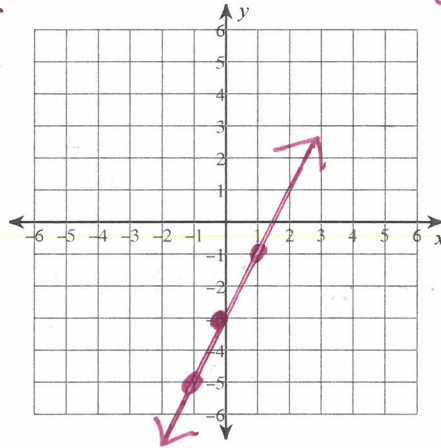
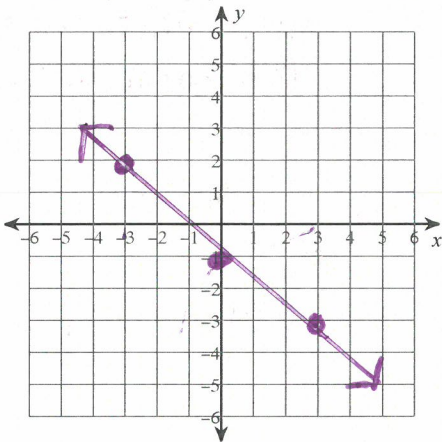
Pg 2: 6pts each

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

use multiples of denominator

9) $y = 2x - 3$

use $x = -1, 0, 1$



x	y
-3	1
0	-1
3	-3

MUST Create a Table

x	y
-1	-5
0	-3
1	-1

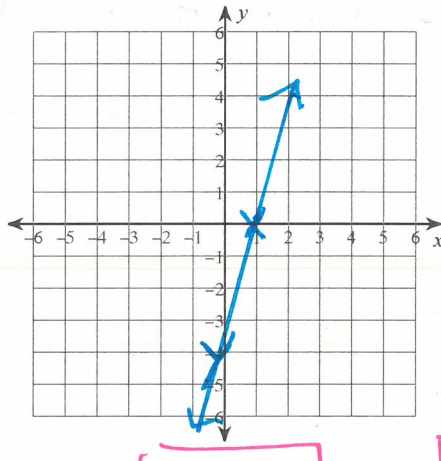
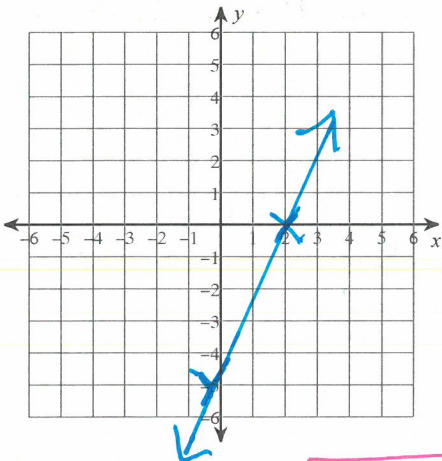
Graph(6pts each): **USE INTERCEPT METHOD**

(1) give the ordered pairs for the intercepts, ordered pairs need to be in ()'s

(2) Label the intercepts the graph with the correct variables.

10) $5x - 2y = 10$

11) $4x - y = 4$



x: 2
(2, 0)

y: -5
(0, -5)

x: 1
(1, 0)

y: -4
(0, -4)

Required Work

(6pts each) Graph: USE **SLOPE-INTERCEPT METHOD:**

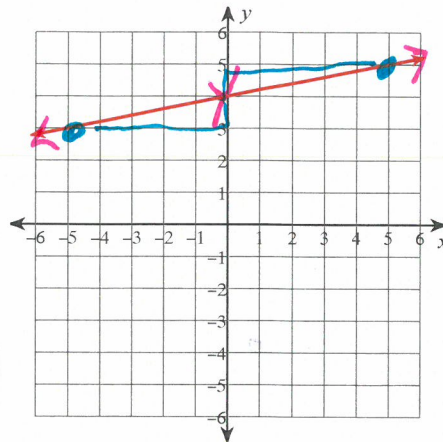
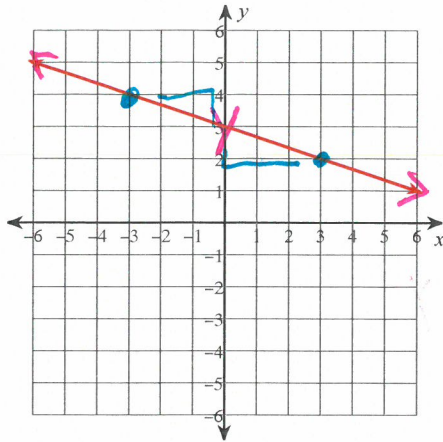
(1) State the slope & y-intercept using the correct variables.

(2) Clearly mark 3 points.

and mark yINT WITH Y

12) $y = -\frac{1}{3}x + 3$

13) $y = \frac{1}{5}x + 4$



$m = -\frac{1}{3}$

$b = 3$

$m = \frac{1}{5}$

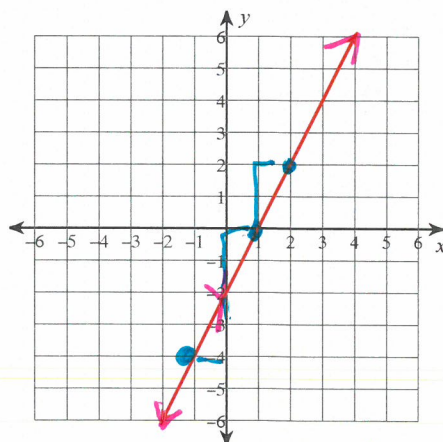
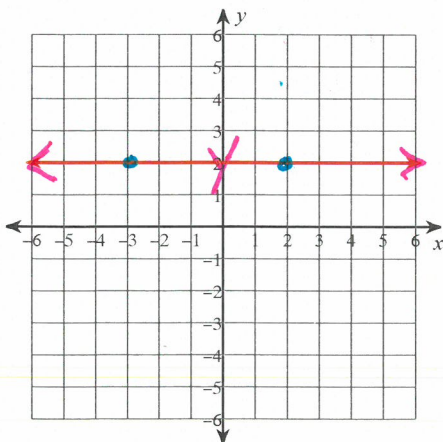
$b = 4$

STEPS

- ① plot yINT
- ② use $m = \frac{\text{Rise}}{\text{Run}}$ to find 2 more points

14) $y = 2$

15) $y = 2x - 2$



$m = 0$

$b = 2$

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

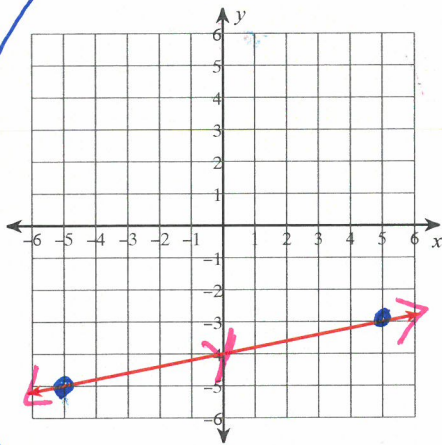
$b = -2$

(6pts each) Graph: **USE SLOPE-INTERCEPT METHOD:**

- (1) Clearly show your work
- (2) State the slope & y-intercept using the correct variables.
- (2) Clearly mark the y-intercept and 2 additional points.

STEP #1 put in S/I ($y = mx + b$)

16) $x - 5y = 20$

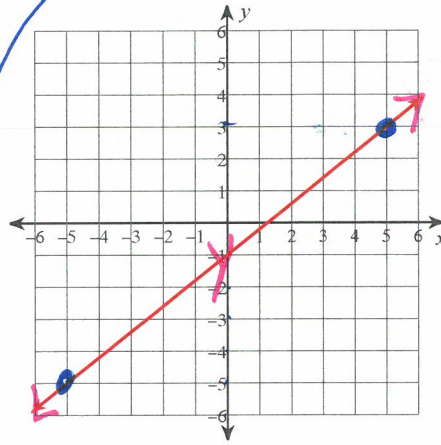


$$\begin{array}{r} x - 5y = 20 \\ -x \quad -x \\ \hline -5y = -x + 20 \\ \frac{-5y}{-5} = \frac{-x + 20}{-5} \end{array}$$

S/I $y = \frac{1}{5}x - 4$

$m = \frac{1}{5}$
 $b = -4$

17) $4x - 5y = 5$



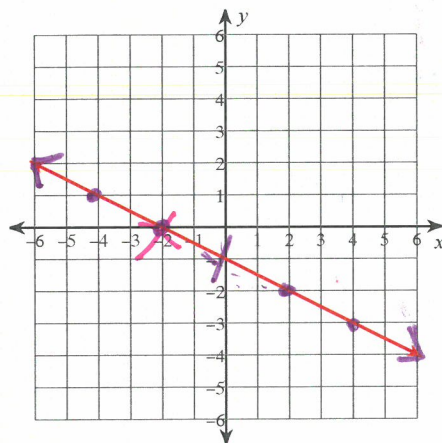
$$\begin{array}{r} 4x - 5y = 5 \\ -4x \quad -4x \\ \hline -5y = -4x + 5 \\ \frac{-5y}{-5} = \frac{-4x + 5}{-5} \end{array}$$

S/I $y = \frac{4}{5}x - 1$

$m = \frac{4}{5}$
 $b = -1$

(4pts) Graph using any method. Show your work!

18) $0 = 4 + 4y + 2x$



S/I $\rightarrow 0 = 4 + 4y + 2x$

$$\begin{array}{r} 0 = 4 + 4y + 2x \\ -4y \quad -4y \\ \hline -4y = 2x + 4 \\ \frac{-4y}{-4} = \frac{2x + 4}{-4} \end{array}$$

$y = -\frac{1}{2}x - 1$ $m = -\frac{1}{2}$ $b = -1$

INTERCEPT METHOD: $2x + 4y = -4$

$x: -2 \quad (-2, 0)$
 $y: -1 \quad (0, -1)$