

This review is **OPTIONAL**. You need to look at the entire review and decide where **YOU** need to practice prior to the test. (Use your Homework Tracking Sheet to help you prioritize your studying.) The **ENTIRE** Chapter 5 Test Review is this worksheet and textbook pg. 354 #12-31 all and #36-39 all (sketch the graphs for #36-39 only). The answers to the textbook are in the back of your book. The answers to this worksheet are posted on my website.

Write the slope-intercept form given the information.

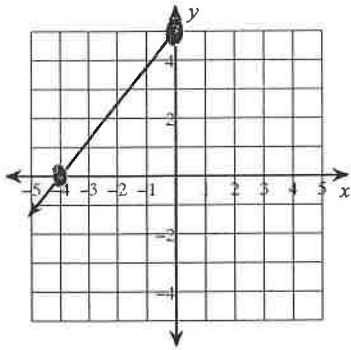
1) Slope =  $-1$ , y-intercept =  $-1$

2) Slope =  $-\frac{1}{2}$ , y-intercept =  $-4$

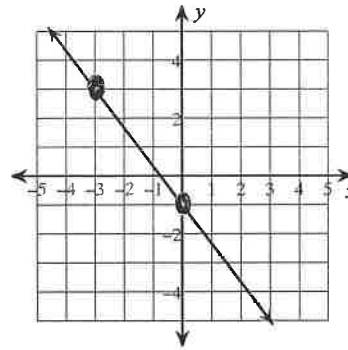
3) through:  $(5, 5)$  and  $(-5, -1)$

4) through:  $(-1, 0)$  and  $(0, 4)$

5)



6)



Write the point-slope form of the equation given the information.

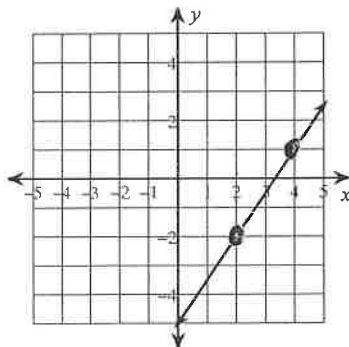
7) through:  $(4, 4)$ , slope =  $2$

8) through:  $(-3, -4)$ , slope =  $-\frac{1}{8}$

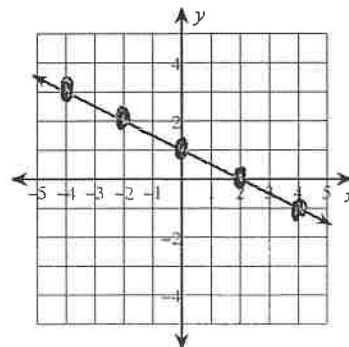
9) through:  $(4, -4)$  and  $(1, 2)$

10) through:  $(-4, 4)$  and  $(-1, 3)$

11)

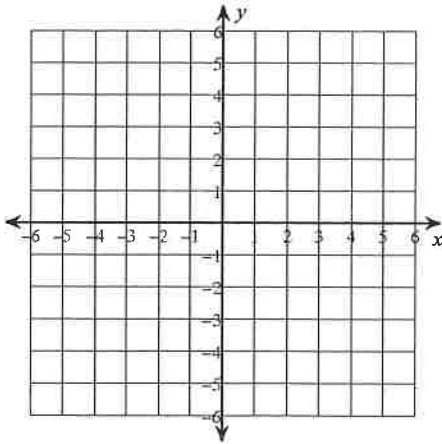


12)

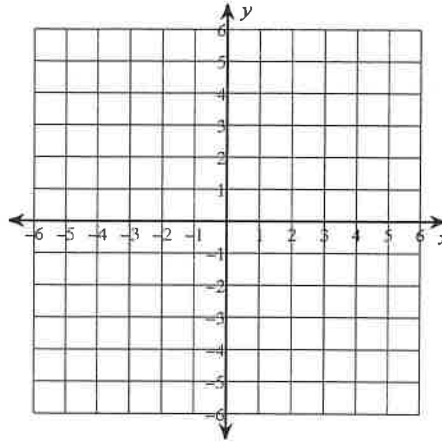


Sketch the graph of each line.

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



14)  $5x = 3y + 15$



Write the standard form of the equation of each line & then identify the x & y -intercepts.

15)  $4 = 8x + y$

16)  $6y = -15x + 63$

17)  $5 - 2x = -y$

18)  $0 = y + 2 + x$

19)  $-3 + x - y = 0$

20)  $x + 16 = -4y$

21)  $\frac{12}{7} - \frac{3}{7}y = x$

22)  $-4y = 2x + 6$

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Write the slope-intercept form given the information.

1) Slope = -1, y-intercept = -1

$$y = -1x + -1$$

2) Slope =  $-\frac{1}{2}$ , y-intercept = -4

$$y = -\frac{1}{2}x + -4$$

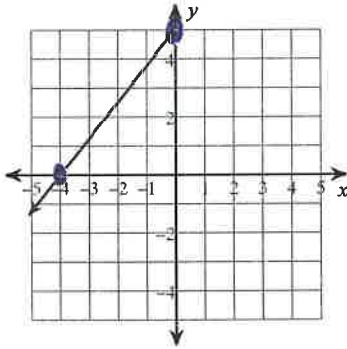
3) through: (5, 5) and (-5, -1)

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

4) through: (-1, 0) and (0, 4)

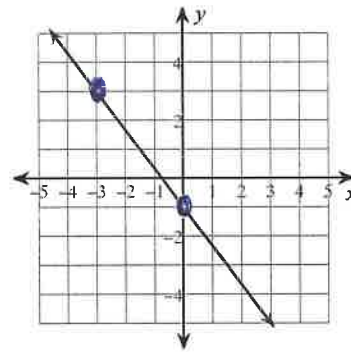
$$y = 4x + 4$$

5)



$$y = \frac{5}{4}x + 5$$

6)



$$y = -\frac{4}{3}x + -1$$

Write the point-slope form of the equation given the information.

7) through: (4, 4), slope = 2

$$y - 4 = 2(x - 4)$$

8) through: (-3, -4), slope =  $-\frac{1}{8}$

$$y + 4 = -\frac{1}{8}(x + 3)$$

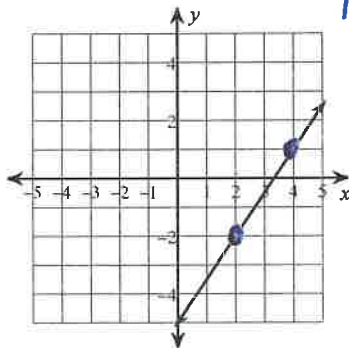
9) through: (4, -4) and (1, 2)  $y + 4 = -2(x - 4)$   
or

$$y - 2 = -2(x - 1)$$

10) through: (-4, 4) and (-1, 3)  $y - 4 = -\frac{1}{3}(x + 4)$   
or

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

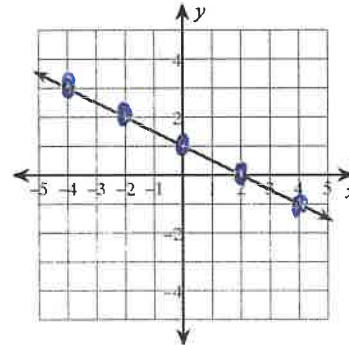
11)



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

$$\text{or } y - 1 = \frac{3}{2}(x - 4)$$

12)



$$y + 1 = -\frac{1}{2}(x - 4)$$

$$\text{or } y = -\frac{1}{2}(x - 2)$$

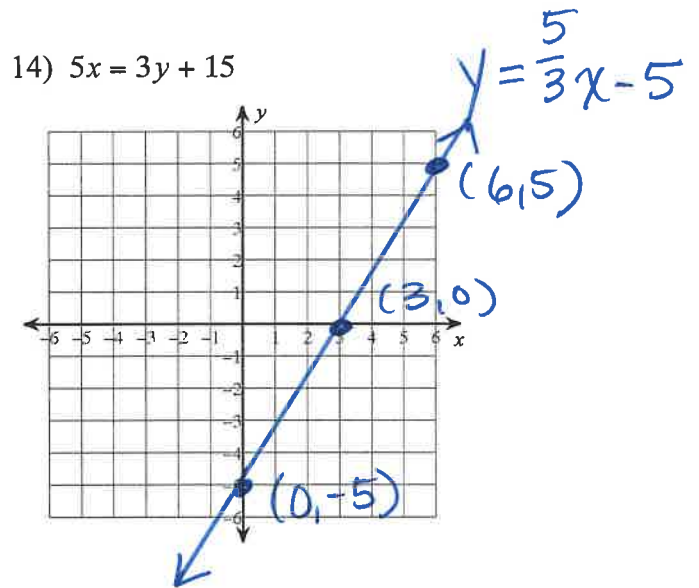
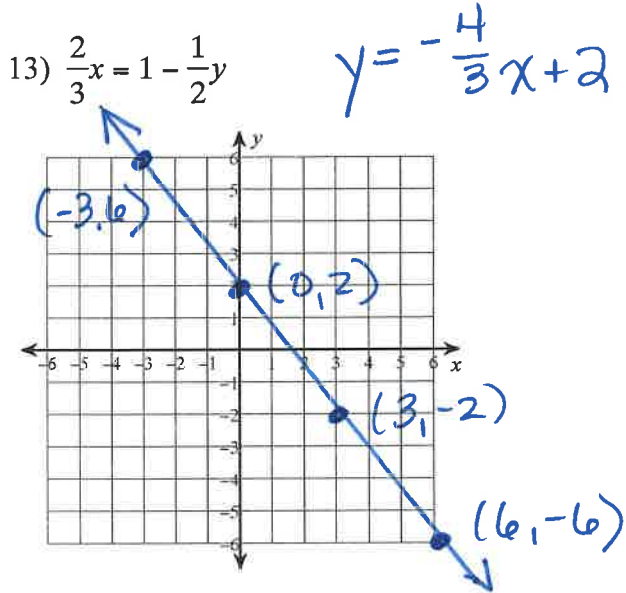
$$\text{or } y - 1 = -\frac{1}{2}x$$

$$\text{or } y - 2 = -\frac{1}{2}(x + 2)$$

$$\text{or } y - 3 = -\frac{1}{2}(x + 4)$$



Sketch the graph of each line.



Write the standard form of the equation of each line & then identify the x & y-intercepts.

15)  $4 = 8x + y$

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22)  $-4y = 2x + 6$

*\* see attached work & answers*

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$$3) \frac{\Delta y}{\Delta x} = \frac{5 - (-1)}{5 - (-5)} = \frac{6}{10} = \frac{3}{5}$$

$$y = \frac{3}{5}x + b, (5, 5)$$

$$5 = \frac{3}{5}\left(\frac{5}{1}\right) + b$$

$$5 = 3 + b$$

$$b = 2$$

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

$$4) \frac{\Delta y}{\Delta x} = \frac{0 - 4}{-1 - 0} = \frac{-4}{-1} = 4$$

$$y = 4x + b, (0, 4)$$

$$y = 4x + 4$$

$$14) \begin{array}{r} 5x = 3y + 15 \\ -15 \qquad -15 \end{array}$$

$$\frac{5x - 15 = 3y}{3}$$

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

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

$$9) \frac{\Delta y}{\Delta x} = \frac{-4 - 2}{4 - 1} = \frac{-6}{3} = -2$$

$$10) \frac{\Delta y}{\Delta x} = \frac{4 - 3}{-4 + 1} = \frac{1}{-3}$$

$$13) \begin{array}{r} \frac{2}{3}x = 1 - \frac{1}{2}y \\ -1 \qquad -1 \end{array}$$

$$\left(\frac{2}{3}x - 1 = -\frac{1}{2}y\right) \cdot 2$$

$$-\frac{4}{3}x + 2 = y$$

$$y = -\frac{4}{3}x + 2$$

$$15) 4 = 8x + y$$

$$8x + y = 4, \left(\frac{1}{2}, 0\right), (0, 4)$$

~~$$16) 6y = -15x + 63$$~~

~~$$\begin{array}{r} +15x \qquad +15x \\ 6y + 15x = 63 \end{array}$$~~

~~$$15x + 6y = 63, \left(4\frac{1}{2}, 0\right), (0, 10\frac{1}{2})$$~~



$$16) \quad 6y = -15x + 63$$

$$+15x \quad +15x$$

$$\frac{15x + 6y = 63}{3}$$

$$5x + 2y = 21, \quad \left(\frac{41}{5}, 0\right)$$

$$(0, 10\frac{1}{2})$$

$$17) \quad 5 - 2x = -y$$

$$-5 \quad -5$$

$$-2x = -y - 5$$

$$+y \quad +y$$

$$(-2x + y = -5) - 1$$

$$2x - y = 5, \quad \left(\frac{5}{2}, 0\right)$$

$$(0, -5)$$

$$18) \quad 0 = y + 2 + x$$

$$-2 \quad -2$$

$$-2 = x + y$$

$$x + y = -2, \quad (-2, 0)$$

$$(0, -2)$$

$$19) \quad -3 + x - y = 0$$

$$+3 \quad +3$$

$$x - y = 3 \quad (3, 0)$$

$$(0, -3)$$

20)

$$x + 16 = -4y$$

$$+4y \quad +4y$$

$$x + 4y + 16 = 0$$

$$-16 \quad -16$$

$$x + 4y = -16 \quad (-16, 0)$$

$$(0, -4)$$

21)

$$\frac{12}{7} - \frac{3}{7}y = x$$

$$+ \frac{3}{7}y \quad + \frac{3}{7}y$$

$$\frac{12}{7} = x + \frac{3}{7}y$$

$$7 \left( x + \frac{3}{7}y = \frac{12}{7} \right)$$

$$7x + 3y = 12, \quad \left(\frac{12}{7}, 0\right)$$

$$(0, 4)$$

$$22) \quad -4y = 2x + 6$$

$$-2x \quad -2x$$

$$-1(-2x - 4y = 6)$$

$$\frac{2x + 4y = -6}{2}$$

$$x + 2y = -3 \quad (-3, 0)$$

$$(0, -\frac{3}{2})$$