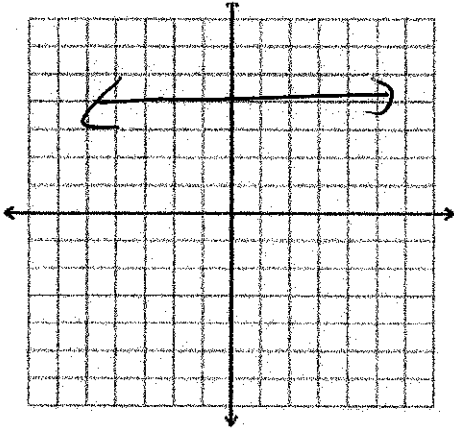


Name Key

Quiz Review Chapter 6

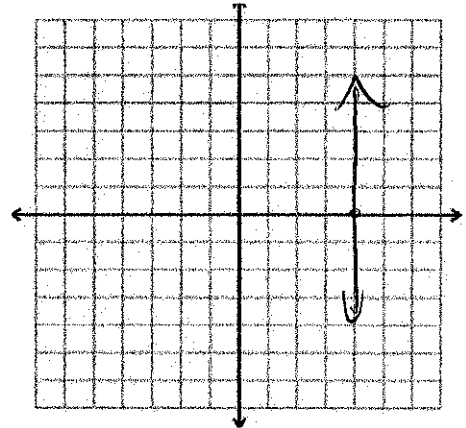
1. graph the line $y = 4$

This is a horizontal (vertical or horizontal) line with a slope of 0 or undefined)



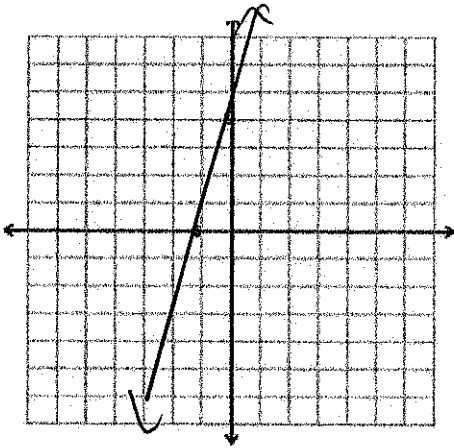
2. Graph the line $x = 4$

This is a vertical (vertical or horizontal) line with a slope of (0 or undefined)



3. Identify the x and y intercepts, then graph:
 $4x - y = -4$

$$4x - y = -4$$



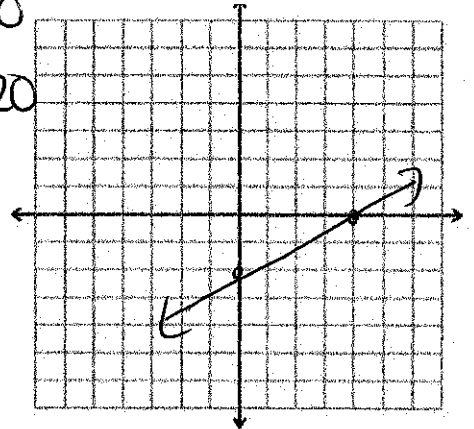
x-int -1 y-int 4

4. Identify the x and y-intercepts, then graph:
 $3y - 4x + 4 = x - 7y - 16$

$$3y - 4x + 4 = x - 7y - 16$$

$$10y - 5x = -20$$

$$-5x + 10y = -20$$



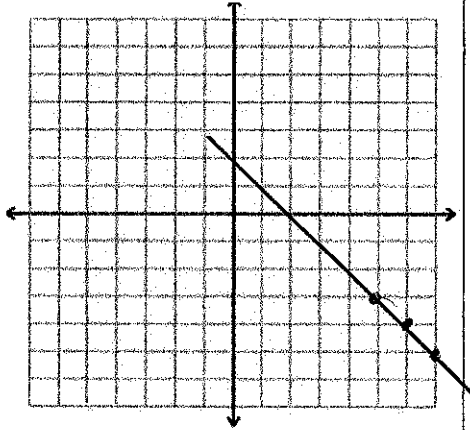
x-int 4 y-int -2

5. Identify the slope and the point the line passes through, then graph:

$$y + 4 = -(x - 6)$$

Slope $\frac{-1}{1}$

Point $(6, -4)$

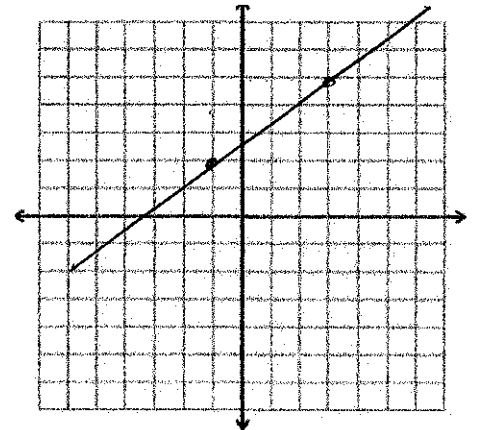


6. Identify the slope and the point the line passes through, then graph:

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

Slope $\frac{3}{4}$

Point $(-1, 2)$



7. Write the equation in standard form using integers:

$$\left[\frac{4}{5}x - 6 = -\frac{3}{4}y \right] \cdot 20$$

$$16x - 120 = -15y$$

$$16x + 15y = 120$$

8. Write an equation in standard form using integers:

$$\left[\frac{1}{3} - x = \frac{2}{5}y \right] \cdot 15$$

$$5 - 15x = 6y$$

$$15x + 6y = 5$$

9. Write the equation for the line with a slope of -2 and passing through (-4, 12)

A. in point slope form $y - 12 = -2(x + 4)$

B. in slope intercept form $y - 12 = -2x - 8$
 $y = -2x + 4$

10. Write the equation for the line with a slope of $\frac{3}{7}$ and passing through (14, -21)

A. in point slope form $y + 21 = \frac{3}{7}(x - 14)$

B. in slope intercept form $y + 21 = \frac{3}{7}x - 6$
 $y = \frac{3}{7}x - 27$

11. Write the equation for the line that passes through (-6, 4) and (-4, 2)

A. in point slope form

$$\frac{2-4}{-4-(-6)} = \frac{-2}{2} = -1$$

$$\begin{aligned} y-2 &= -(x+4) \\ \text{or} \\ y-4 &= -(x+6) \end{aligned}$$

B. in slope intercept form

$$\begin{aligned} y-2 &= -x-4 \\ \boxed{y} &= -x-2 \end{aligned}$$

12. Write the equation for the line that passes through (5, 3) and (10, 2)

A. in point slope form

$$\frac{2-3}{10-5} = \frac{-1}{5}$$

$$\begin{aligned} y-3 &= -\frac{1}{5}(x-5) \\ \text{or} \\ y-2 &= -\frac{1}{5}(x-10) \end{aligned}$$

B. in slope intercept form

$$y-2 = -\frac{1}{5}x + 2$$

$$\boxed{y = -\frac{1}{5}x + 4}$$

13. Brittany bought some itunes gift cards. They were \$15 or \$25. She spent \$300.

A. Define your variables:

\$15 gift card x \$25 gift card y

B. Equation $15x + 25y = 300$

C. What are the x-and y-intercepts of your equation? What do they mean in terms of the situation?

$x = 20$ Buy no \$25 cards, can buy 20 \$15 cards
 $y = 12$ Buy no \$15 cards, can buy 12 \$25 cards.

14. Kurt bought some starbucks gift cards. They were \$5 or \$10. He spent \$600.

A. Define your variables:

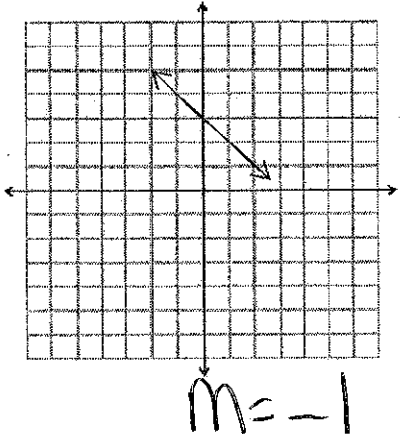
\$5 gift card x \$10 gift card y

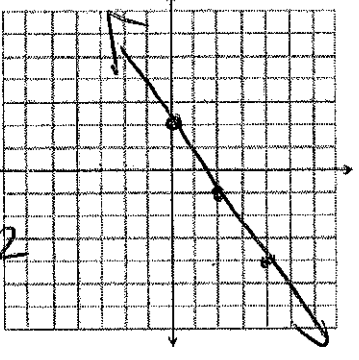
B. Equation $5x + 10y = 600$

C. What are the x-and y-intercepts of your equation? What do they mean in terms of the situation?

$x = 120$ buy 0 \$10 cards, buy 120 \$5 cards.
 $y = 60$ buy 0 \$5 cards, buy 60 \$10 cards.

Name _____

<p>Slope:</p> $\frac{\text{rise}}{\text{run}} \quad m = \frac{y_2 - y_1}{x_2 - x_1}$	<p>Description/how to use:</p> <p>count rise/run</p> <p>slope slide!</p>
<p>Find the slope of the line:</p>  <p>$m = -1$</p>	<p>Explain how to find the slope of the line containing (-3, 8) and (-5, -12)</p> $\frac{(-3, 8) - (-5, -12)}{2} = \boxed{10}$

<p>Slope intercept form:</p> $y = mx + b$	<p>Description/how to use:</p> <p>solve for y</p> <p>$m = \text{slope} \frac{\text{rise}}{\text{run}}$</p> <p>$b = y \text{ int} = \text{Starting point}$</p>
<p>Explain how to graph $y = -\frac{3}{2}x + 2$</p> <p>plot $b = 2$</p> <p>slope $-\frac{3}{2}$ fall 3 right 2</p> 	<p>Explain how to find the slope and y-intercept of $4x - 3y = 8x - y - 16$</p> $\frac{-4x + y}{-2} = \frac{4x - 16}{-2}$ $y = -2x + 8$

Standard form:

$$Ax + By = C$$

Description/how to use:

X positive
x + y on one side
no fractions/decimals
good for x + y int

Explain how and graph the line using x and y intercepts:

$$-3x - y = -6$$

$$-3x - 0 = -6$$

$$-3x = -6$$

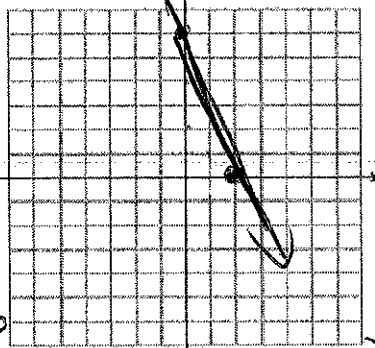
$$x = 2$$

$$(2, 0)$$

$$-3(0) - y = -6$$

$$-y = -6$$

$$y = 6 \quad (0, 6)$$



Explain how to write the equation in standard form using integers:

$$-y + \frac{1}{5} = -\frac{3}{4}x$$

$$LCD = 20$$

$$\begin{array}{r} -20y + 4 = -15x \\ +15x \quad -4 \quad +15x \quad -4 \\ \hline 15x - 20y = -4 \end{array}$$

Point slope form:

$$y - y_1 = m(x - x_1)$$

Description/how to use:

Find the point that was used.
(Subtraction in formula \rightarrow take opposite!)
plot then apply slope.

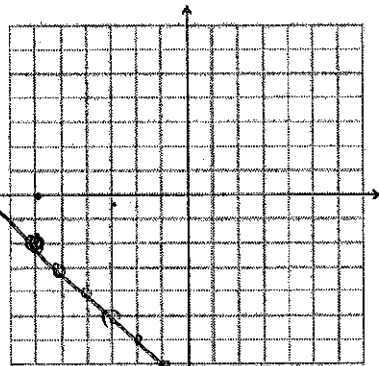
Explain how to graph using point slope form:

$$y + 2 = -(x + 6)$$

Point

$$(-6, -2)$$

$$m = -1$$



Explain how to write an equation in point slope form for the line that passes through (-2, 8) and (-6, 18)

① slope

$$(-2, 8)$$

$$(-6, 18)$$

$$\frac{-10}{4} = -\frac{5}{2}$$

② pick a point

$$y - 8 = -\frac{5}{2}(x + 2)$$

point slope form