

Wednesday, December 5, 2012

AGENDA:

- **TISK Problems & No MM**
- **Homework Check**
- **Lesson 11-3: Slope-Intercept Form**
- **Homework: Slope-Intercept Form worksheet**



TISK Problems

1) Solve for y : $-3x + 2y = 20$

2) Find the LCM of 18 and 21.

3) Simplify: $-3x + 4(12 - 8x)$

Homework Check

1) $m = -\frac{1}{4}$

2) $m = \frac{2}{3}$

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

4) No Slope/Undefined

5) $m = 0$

6) $m = \frac{5}{3}$

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

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

9) $m = -\frac{6}{5}$

10) $m = \frac{4}{5}$

11) $m = 0$

12) $m = -\frac{3}{4}$

13) $m = \frac{2}{1} = 2$

14) No Slope/Undefined

§11-3 Slope-Intercept Form



- When an equation is written in slope-intercept form it always looks like this:

$$y = mx + b$$

- Where (x, y) are the coordinates of any point on the line,
- m stands for slope (how you **m**ove),
- and b stands for the y -intercept (where you **b**egin on the y -axis).

Write the equation in slope-intercept form.



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

Distribute!

$$y = mx + b$$

$$y = \frac{1}{2}x + \frac{3}{2}$$

So what is the slope of this equation? $\frac{1}{2}$

And what is the y -intercept of this equation? $\frac{3}{2}$

$$y = mx + b$$
$$\begin{array}{r} 2x - 4y = 16 \\ -2x \qquad \qquad -2x \end{array}$$

$$\frac{-4y}{-4} = \frac{-2x + 16}{-4}$$

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

So what is the slope of this equation? $\frac{1}{2}$

And what is the y -intercept of this equation? -4

Write the equation in slope-intercept form.



$$y = -4$$

$$y = mx + b$$

$$y = 0x + (-4)$$

So what is the slope of this equation?

0

And what is the y -intercept of this equation?

-4

$$y = -x + 2$$

$$y = mx + b$$

$$y = -1x + 2$$

So what is the slope of this equation? $-\frac{1}{1}$

And what is the y -intercept of this equation?

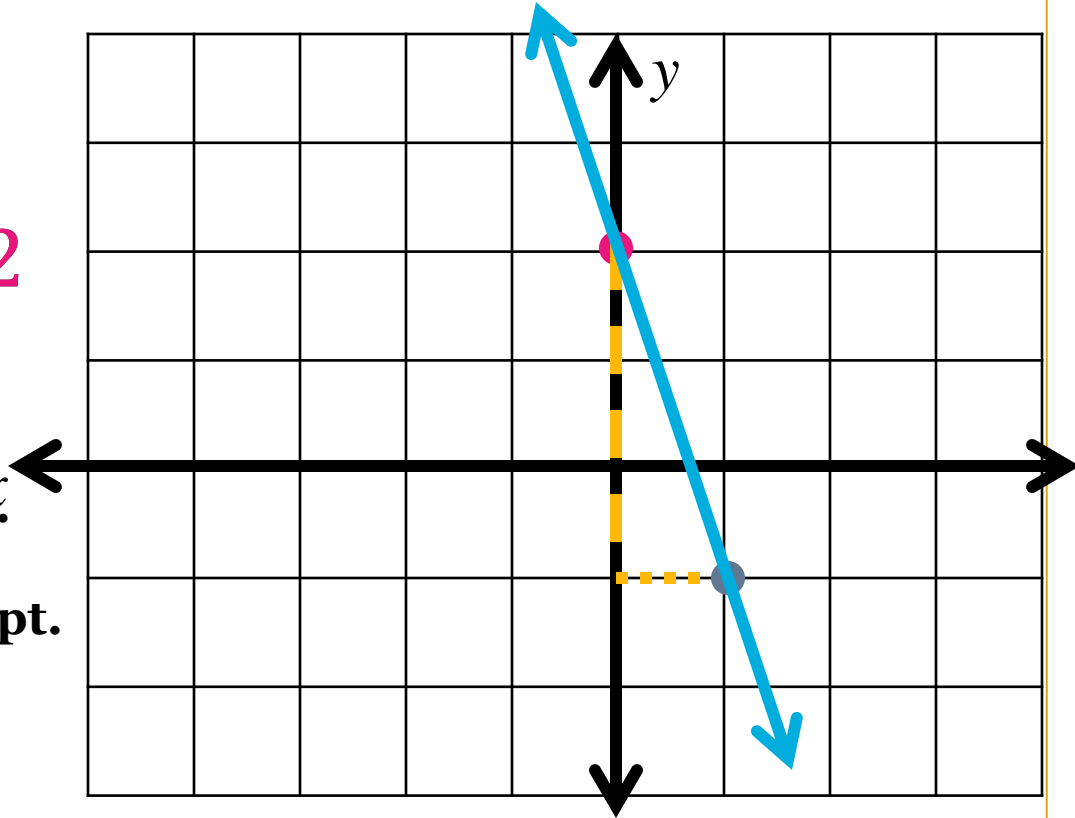
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Graph the equation.



$$\begin{array}{r} 3x + y = 2 \\ -3x \quad -3x \\ \hline y = -3x + 2 \end{array}$$

- 1) Write in slope-intercept form.^x
- 2) Place a point on the y -intercept.
- 3) Use the slope to *move* to the next point.
- 4) Connect the dots!



Graph the equation.



$$\begin{array}{r} 3x + 4y = 8 \\ -3x \qquad -3x \\ \hline \end{array}$$

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

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

