Today's Plan:

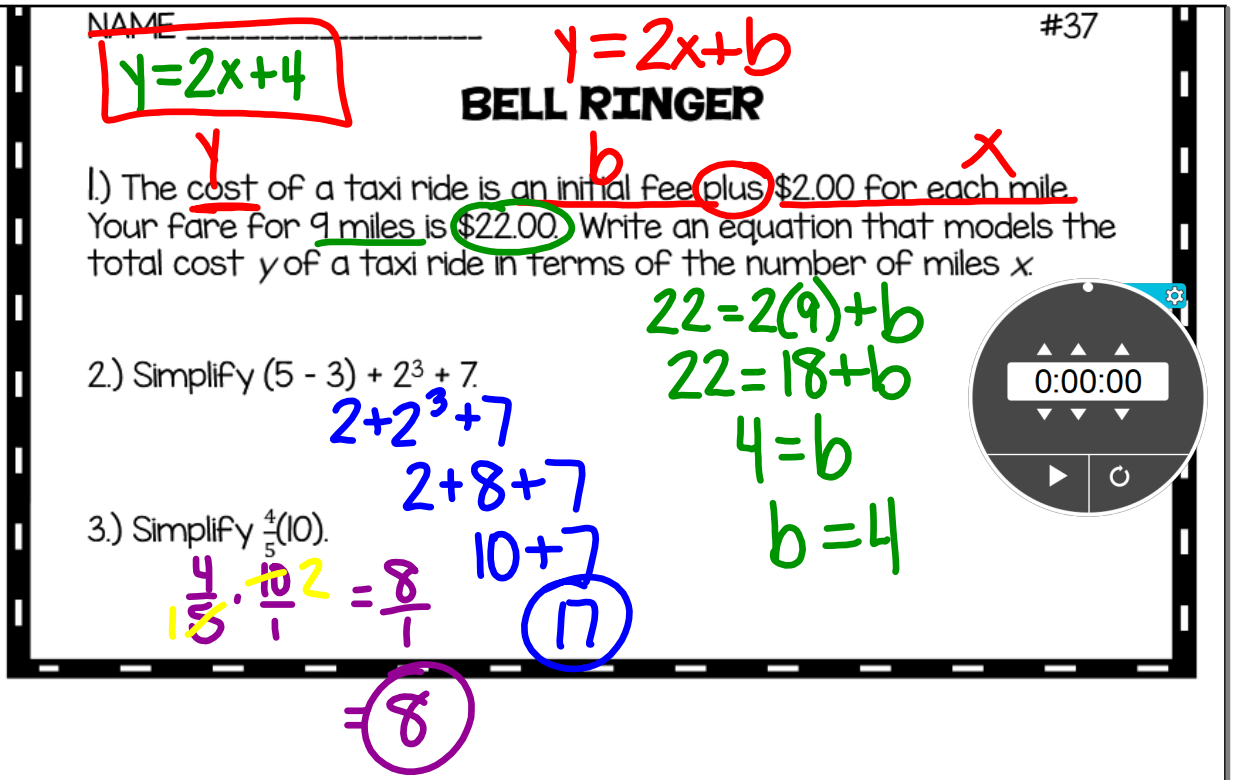
Learning Target (standard): I will describe the slope of a line as a rate of change. I will use this rate of change in applied problems.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

Assessment: Board work, homework check and homework assignment

Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.



Find the slope of the line.

5) $(7,-8)$ & $(4,6)$

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

$= \frac{6+8}{4-7}$

$= \frac{14}{-3}$

$m = -\frac{14}{3}$

Find the slope of the line.

11) $x - 5y = -5$

$-x \quad -x$

$y = mx + b$

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

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

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

Find the missing value.

14) $(x,-5)$ & $(-4,-6)$

$m = undefined$

$\frac{\#}{0} = und$

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

$\frac{\#}{0} = \frac{-6+5}{-4-x}$

$0 = -4 - x$

$x = -4$

Find the missing value.

16) $(-2, y)$ & $(7,6)$

$m = \frac{14}{9}$

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

$\frac{14}{9} = \frac{6-y}{7+2}$

$\frac{14}{9} = \frac{6-y}{9}$

$14 = 6 - y$

$8 = -y$

$-8 = y$

$y = 8$

Use the 6-step process to describe the rate of change.

A student earns a 98 on a test for answering one question incorrectly and earns a 90 for answering five questions incorrectly.

① independent- questions answered incorrectly
dependent- score on test (percent)

② RoC = $\frac{\Delta \text{dependent}}{\Delta \text{independent}}$

③ RoC = $\frac{\Delta \text{score (percent)}}{\Delta \text{missed questions}}$

④ RoC = $\frac{90-98 \text{ percent}}{5-1 \text{ questions}}$

⑤ RoC = $\frac{-8}{4} = \frac{-2 \text{ percent}}{1 \text{ question}}$

⑥ Every question missed, you lose 2 percentage points.

Graph using a *t*-chart. Find the slope and intercept.

$4x - 2y = 6$

$-4x \quad -4x$

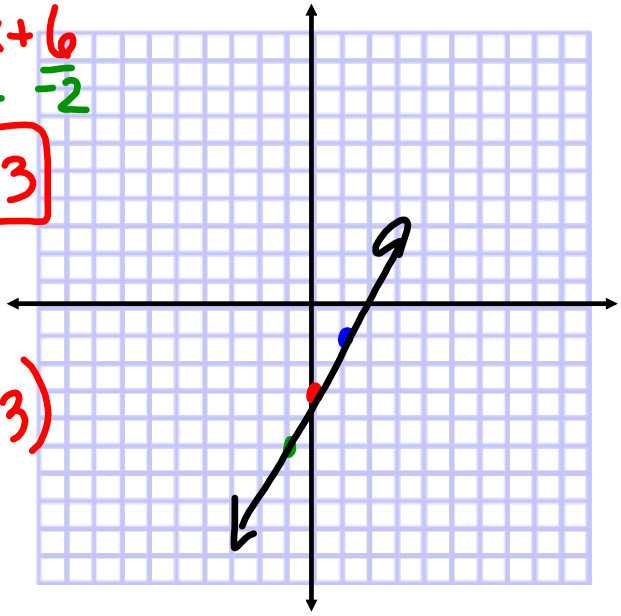
$\frac{-2y}{-2} = \frac{-4x}{-2} + \frac{6}{-2}$

$y = 2x - 3$

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

$m = 2$

$I_y: (0, -3)$



$y = 2(-1) - 3$

$y = 2(1) - 3$

Graph using a *t*-chart. Find the slope and intercept.

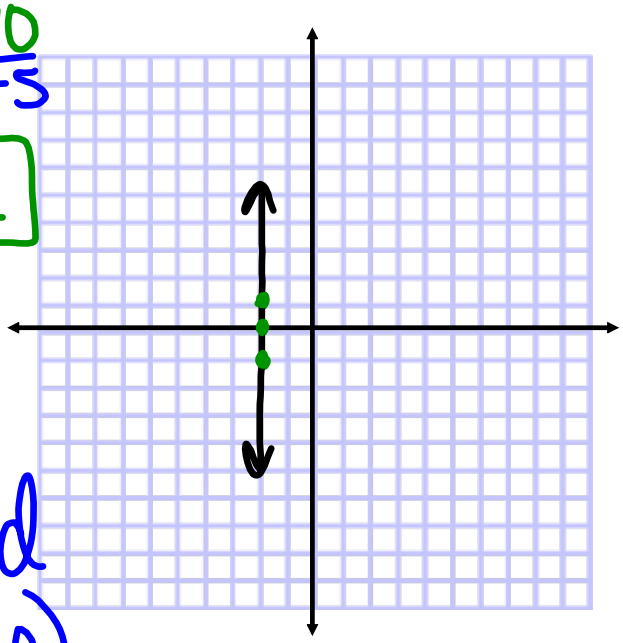
$-5x+2=12$

$-2 \quad -2$

$\frac{-5x=10}{-5 \quad -5}$

$x=-2$

x	y
-2	-1
-2	0
-2	1



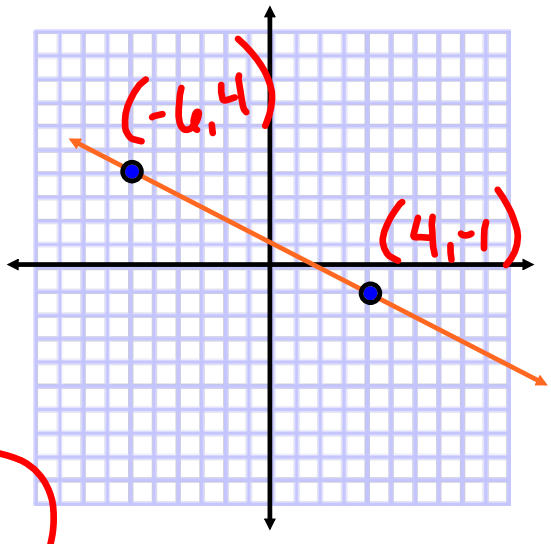
$m=\frac{\#}{0}$

$m=\text{und}$

$I_x: (-2, 0)$

Find the slope of the line using the formula.

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



$=\frac{-1-4}{4+6}$

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

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

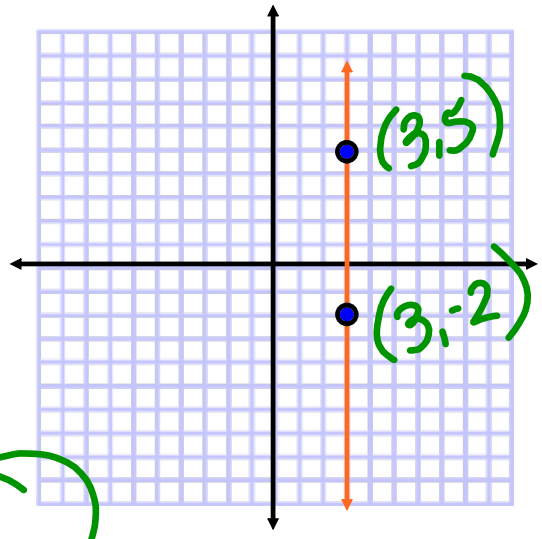
Find the slope of the line using the formula.

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

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

$$= \frac{-7}{0}$$

m = und



Find the slope of the line.

$$3x - 4y = 12$$

$-3x$ $-3x$

$$\frac{-4y}{-4} = \frac{-3x}{-4} + \frac{12}{-4}$$

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

$m = \frac{3}{4}$

Each pair of points lies on a line with the given slope. Find the missing value.

$(4,3),(5,y)$

$m=2$

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

$2=\frac{y-3}{5-4}$

$2=y-3$

$y=5$

Each pair of points lies on a line with the given slope. Find the missing value.

$(4,-3),(4,-2)$

$m=undefined$

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

$\frac{\#}{0}=\frac{-2+3}{4-x}$

$\frac{2}{x-4}=\frac{2}{0}$

$0=4-x$

$x=4$

Assignment:

Slope Worksheet

#1-22

* QUIZ on Monday! *