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Warmup 10/(Slope of this line:

1) Find and interpret the slope.

2) Explain why the date problem is correct.

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## Slope-Intercept Form

## Objective:

- Be able to recognize and graph a linear equation in slope-intercept form


## Can you fill in the table REALLY FAST???

- $y=3 x+5$

| x | y |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |


"Start with 5 dollars, gain 3 dollars per day"

## Can you fill in the table REALLY FAST???

$\cdot y=-2 x+10$

| x | y |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |


"Start with 10 dollars, LOSE 2 dollars per day"

## Can you fill in the table REALLY FAST???

$\cdot y=\frac{1}{3} x+6$

| x | y |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |


"Start with 6 dollars, gain $1 / 3$ dollar per day" "Start with 6 dollars, gain 1 dollar every 3

## Slope-Intercept Form $y=m x+b$

- "m" is the slope
- how much the graph increases or decreases for each "x"
- "b" is the y-intercept
- The value of $y$ when $x$ is zero (the "initial value")
- Always on the y-axis
- (l'm not sure why they picked those letters. If you find out why you can share it with the class)


## Write the equation:



## Write the equation:



## Write the equation:



## Write the equation:



## Draw the graph



## Draw the graph



## Draw the Graph


-Graph:

$$
y=\frac{3}{2} x-6
$$



## -Graph:

$$
y=-3 x-2
$$



## -Graph:



## What would the graph of

 $y=-6$ look like? Convince me.

## What would the graph of x = 4 look like? Convince me.



## COMPLETE

 YESTERDAY'S HOMEWORK
## Classwork/Homework

- Worksheet \#1 - 16

