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Warmup 9/(Oscar's age) - (Big Bird's age, + Zoe's age + Elmo's age + Grover's age + Snufflupagus' age)


## HONORABLE MENTIONS: Sept. 25

- Reily G: Total \# of desks in this room
- Luke L: (4! -4) + 3!


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## Objectives:

-Be able to find the slope of a line on a graph! (Today)
-Be able to find the slope between two points without using a graph (Tomorrow)


## Which roof is steeper?



Increases 8 numbers for every 4

$$
8 \div 4=2
$$

Increases 2 numbers for every 1


Increases 15 numbers for every 10

$$
15 \div 10=1.5
$$

Increases 1.5 numbers for every 1

## Which line is steeper?



## How steep is this line?

Increases 2 numbers for

| every 4 " ${ }^{2}$ " |
| :--- |
| $2 \div 4=0.5$ |

Increases 0.5 for every 1


## How steep is this line?

Increases 3 numbers for

$$
\text { every } 4 \text { " } x \text { " }
$$

Increases 0.75 for every 1 (3/4 of a box)


## How steep is this line?



- SLOPE is how steep a line is.
- It tells you how much the graph increases for each x .
- Bigger slope number = steeper line!
- A straight line will NEVER CHANGE SLOPEy!


## How to find Slope from a Graph:

Pick two points, then find the:

- change in $y$ change in $x$
- (Also known as $\left.\frac{\text { rise }}{\text { run }}\right)$

Find the slope...
change in $y$
$\overline{\text { change in } x}$


Find the slope of each line...


Find the slope of each line...


- Direction matters!!!
- READ THE GRAPH LEFT TO RIGHT!!!
- Up \& to the right (increasing) = positive slope
$\circ$ Down \& to the right (decreasing) = negative slope


## Find the slope of each line...


$\frac{3}{0}=$ undefined


## Positive <br> Negative



Zero
Undefined


## Find the slope:



## VERY IMPORTANT:

Do NOT just count boxes.
If your x or y -axis has a different scale, you must go by the numbers!

## Finding Slope in Multiple Ways

Find the slope of the line using the two points


- Find the slope of each line.



## Homework: Slope Half-Sheet O

