Name_____

SLOPE AS A RATE OF CHANGE

BELL WORK

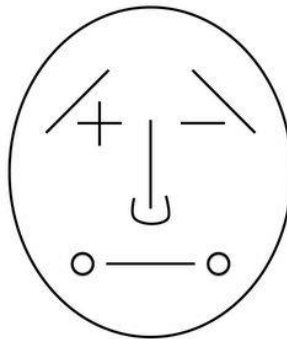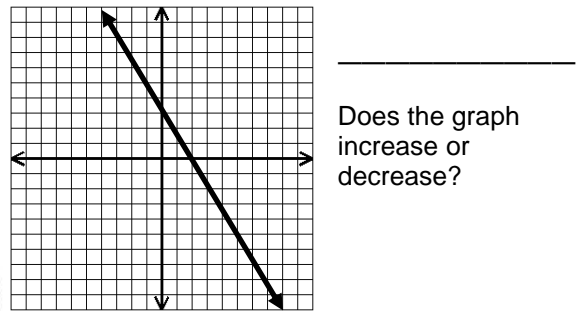**Determine whether each graph below represents a function.**
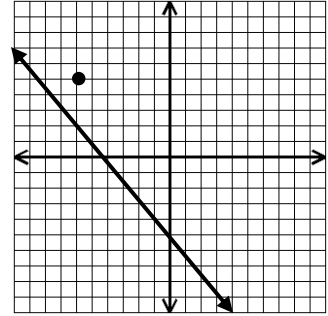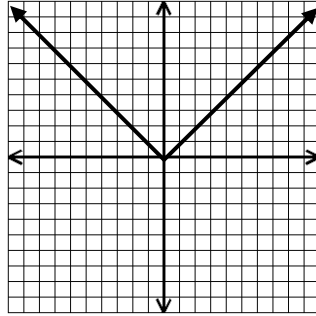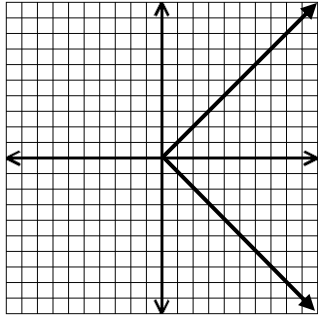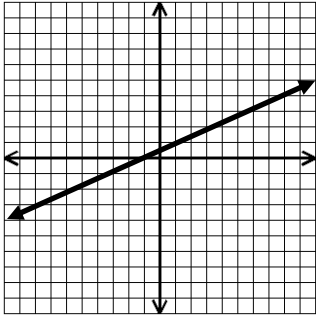
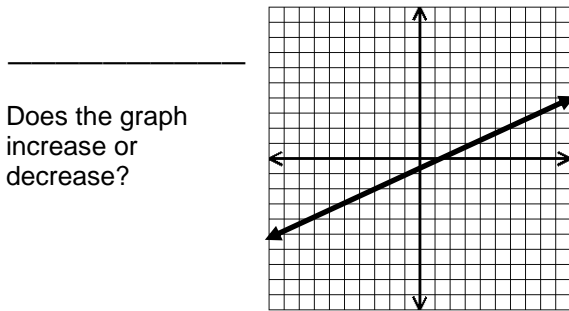**_SLOPE_** measures the _____ of a line.

It is the rate of _____ change to _____ change.

It is the rate of change of _____ with respect to _____.

SLOPE = $\dfrac{\text{change in y}}{\text{change in x}}$ **or** $\dfrac{\Delta y}{\Delta x}$ **or** $\dfrac{\text{rise} \updownarrow}{\text{run} \leftrightarrow}$

There are four types of slope:

_____

Does the graph increase or decrease?

_____

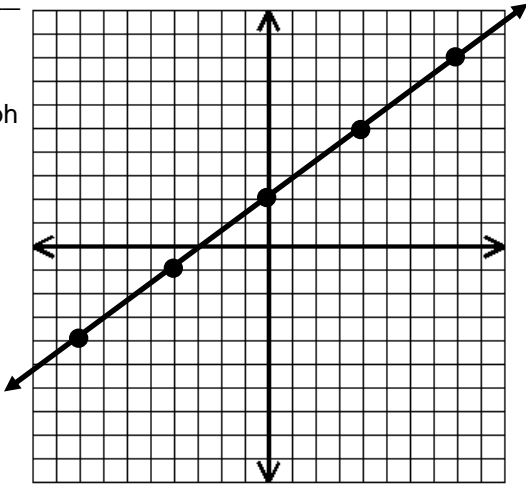Does the graph increase or decrease?

Mr. VUX HOY

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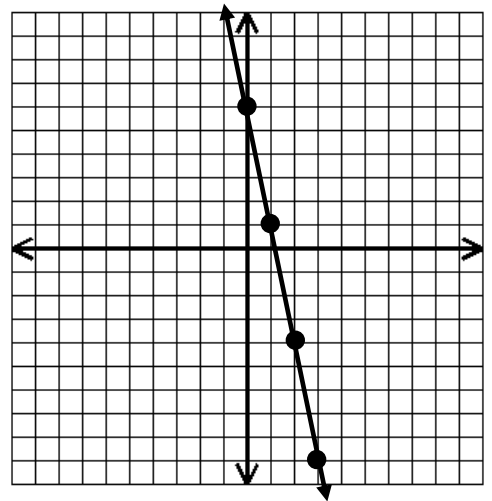
_____
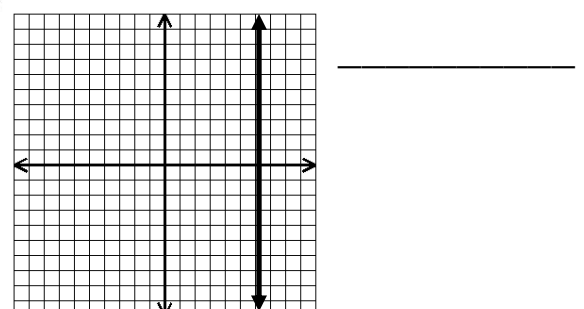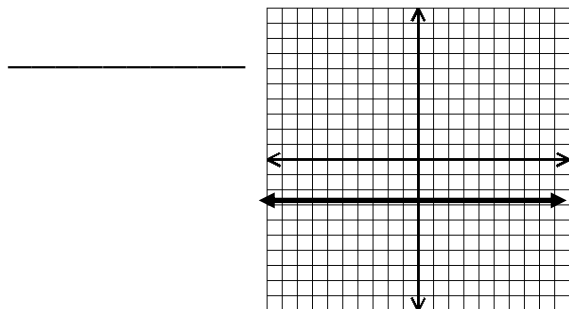
Find the slope of each line shown.

1. _____

Does the graph increase or decrease?
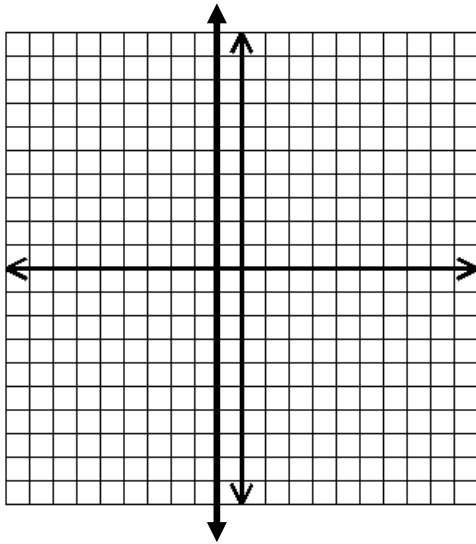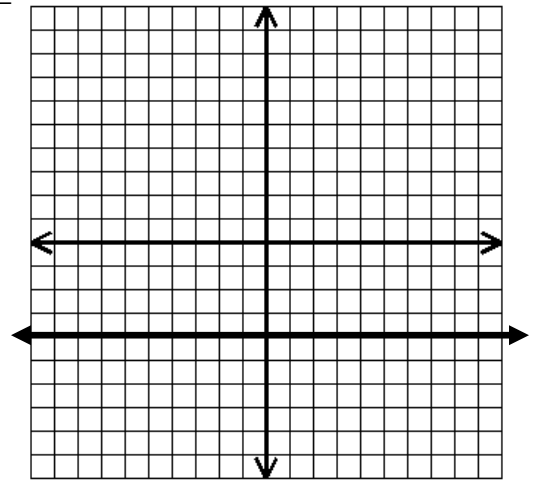
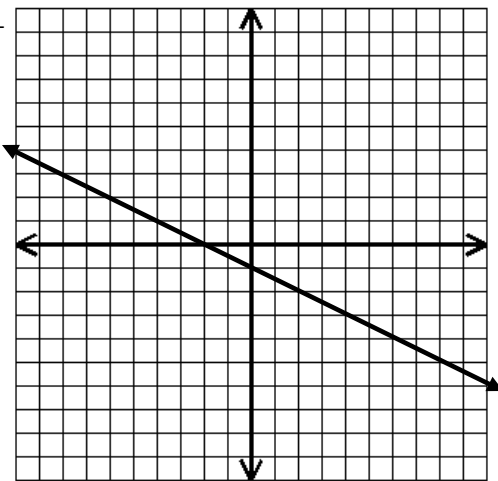2. _____

Does the graph increase or decrease?

3. _____

4. _____

What is the rate of change of y with respect to x for each graph shown below?
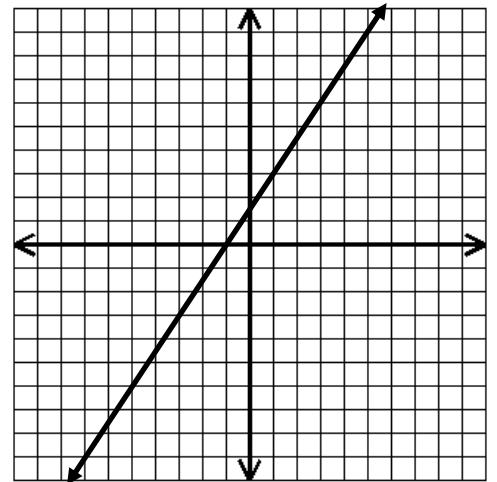
5. _____

Does the graph increase or decrease?

A. 2   B. -2   C. $-\dfrac{1}{2}$ D. $\dfrac{1}{2}$

6. _____

Does the graph increase or decrease?

A. $-\dfrac{3}{2}$ B. $\dfrac{3}{2}$ C. $-\dfrac{2}{3}$ D. $\dfrac{2}{3}$

7. What is the slope of the line containing the points (-3, -4) and (-1, -7)?	8. Find the slope of the line from the given table: | x	y
2	1
2	5	
9. The pair of points (6, y) and (10, -1) lie on a line with a slope of ¼ . What is the value of y?	10. Would the following points (1, 2) and (5, 2) create a vertical or horizontal line and why?

11. The graph below shows the relationship between the number of dollars a worker earns and the number of hours worked.

Worker's Earnings

Which of the following statements about the slope of the graph is false?

A. The slope is positive because the amount of money the worker earns is increasing.

B. The slope represents the change in amount earned with respect to time worked.

C. The worker earns $4 in 5 hours.

D. The worker earns $160 in 20 hours.