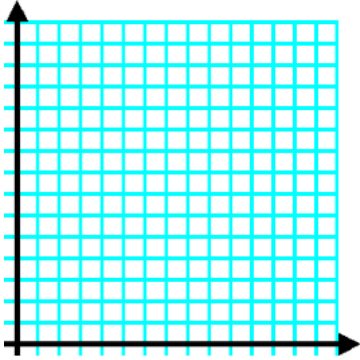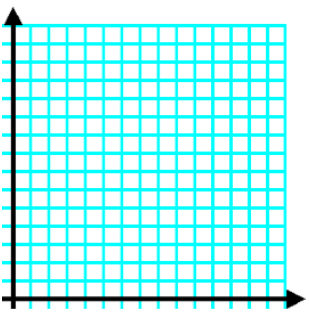**Day 22**: Linear Functions and Slope

Situation	Complete Table	Write an Equation	Graph
Bailey babysits for the Wilson family. She charges $5 just to drive there to pay for gas, and then she charges $9 per hour.	<table><tr><td>**x**</td><td>**y**</td></tr><tr><td>0</td><td></td></tr><tr><td>1</td><td></td></tr><tr><td>2</td><td></td></tr><tr><td>3</td><td></td></tr><tr><td>4</td><td></td></tr><tr><td>5</td><td></td></tr><tr><td>20</td><td></td></tr><tr><td>21.5</td><td></td></tr><tr><td>x</td><td></td></tr></table>	Define the variables: x: y: Equation:	
Make up a situation:	<table><tr><td>**x**</td><td>**y**</td></tr><tr><td>0</td><td></td></tr><tr><td>1</td><td></td></tr><tr><td>2</td><td></td></tr><tr><td>3</td><td></td></tr><tr><td>4</td><td></td></tr><tr><td>5</td><td></td></tr><tr><td>20</td><td></td></tr><tr><td>21.5</td><td></td></tr><tr><td>x</td><td></td></tr></table>	Define the variables: x: y: Equation: y = -2x + 14	

SLOPE!

Make a list of all the ways you have learned to identify/calculate slope:

How to calculate Slope

Slope is also called _____ .

Situation/Pattern

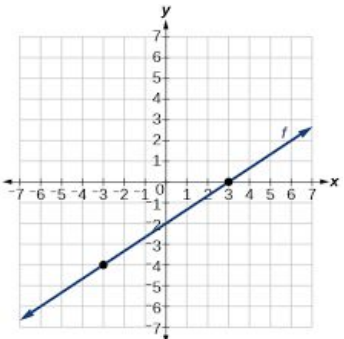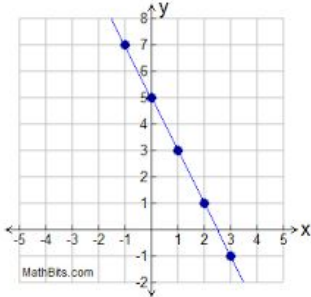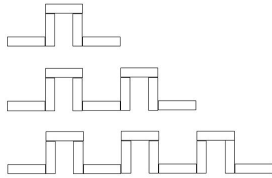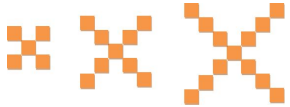| You decide to go to the pumpkin patch this weekend with your family. Pumpkins cost $0.99 per lb, and it costs $3 to enter the pumpkin patch.	Figure 1 Figure 2 Figure 3

Graph

Example:	Example:
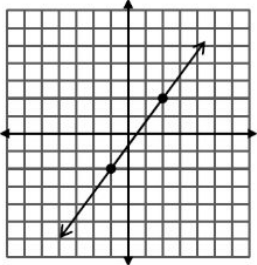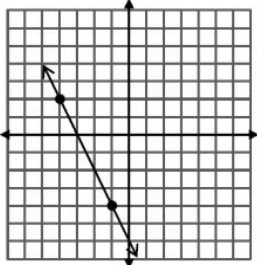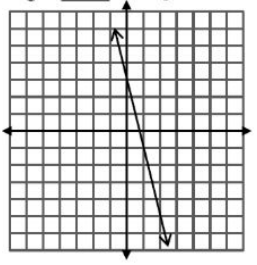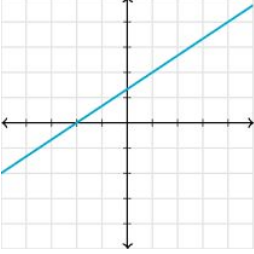
Table

Example:

x	y
2	-10
6	-4
10	a
14	8
18	14
22	20

You Try:

x	y
-1	13
-3	16
-5	19
-7	22
-9	25
-11	28

Two Points

FORMULA:	Example: (-1, 2) and (3, 5)

Find the slope in each situation or pattern:

| 1. Jordan is mowing lawns each week for $30 per lawn. They already have $350 saved up.

Slope : _____ | 2. Emiko is tying knots in a rope and re-measuring its length after each knot. She started with a length of 140 cm, and it decreases by 3.5 each knot.

Slope: _____ | 3.

Slope : _____ | 4. |

Calculate the slope from each graph:

5.

6.

7.

8.

Slope: _____   Slope: _____   Slope: _____   Slope: _____

Calculate the slope from each table of values:

9.

x	y
-1	3
0	5
1	7
2	9

10.

x	y
-1	3
1	2
3	1
5	0

11.

x	y
-1	0
-3	1
-5	2
-7	3

12.

x	y
-1	9
-3	5
-5	1
-7	-3

Slope: _____   Slope: _____   Slope: _____   Slope: _____

Calculate the slope from two points:

13. (1, 4) and (3, -2)   14. (-3, -1) and (-2, 1)   15. (-6, 3) and (5, -2)

For #1 and #2 on the previous page, describe in a sentence what the slope represents.

#1:   #2:

3. What does slope tell you about a graph?

4. What does slope tell you about a table?

5. Do you know any vocabulary that describes when graphs have the same slope?