Day 25: Fractional, Zero, and Undefined Slopes

Tables: Each of the tables below has a slope that is a fraction, zero, or is undefined. First, fill in the blanks in the table. Then, use what we learned in "Match My Line" to identify the slope in each table. As a challenge, write the equation for each table.

1.

x	0	1		3	
y	5		5	5	5

Equation: _____

2.

x	0		6	9	
y	7	-3	-13		-33

Equation: _____

3.

x	15	15	15	15	15
y	35	25		5	

Equation: _____

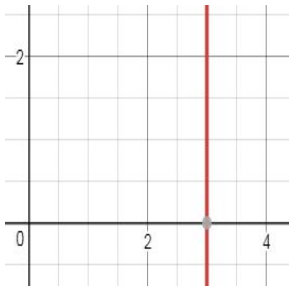
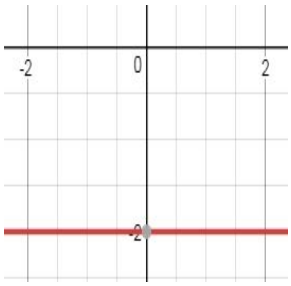
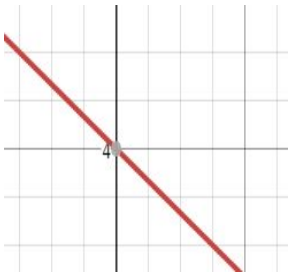
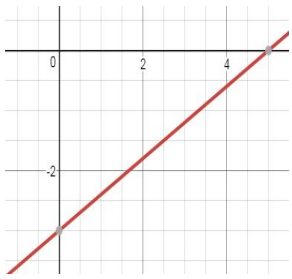
4.

x	4	8	12		20
y	-5	2	9		23

Equation: _____

Summarize: How can you identify a table with a slope of zero? How can you identify a table with an undefined slope?

Graphs: Each of the graphs shown below has a fractional, zero, or undefined slope. Identify the slope for each graph. As a challenge, write the equation for each graph.

			
Slope: **Equation:**	**Slope:** **Equation:**	**Slope:** **Equation:**	**Slope:** **Equation:**

Summarize: How do you find the slope from a graph?

Word Problems: Each of the word problems below has a fractional, zero, or undefined slope. Identify the slope for each problem. Write a full sentence that puts the slope in context of your problem (e.g. “Jake earns $5 per lawn mowed”). As a challenge, write the equation for each situation (y=mx+b)

1. Mr. Maurer is training for another marathon in the spring. Every 30 minutes he can run 4 miles. He warmed up with a 1.5-mile walk. Let y represent his total distance traveled (walking AND running) and x represent the number of minutes he has been running.

   Slope:

   Sentence:

2. Mr. Maurer is done training for his marathon. He is sitting on the couch at his house, watching TV. Every 30 minutes that goes by, he is still sitting on the couch. Let y represent his distance from the couch, and x represent the number of minutes he has been sitting on the couch.

   Slope:

   Sentence:

3. Mr. Maurer is experimenting with dropping objects from the couch to the floor. He drops a paper clip, a tennis ball, a book, a bowling ball, and his shoes. Each of the objects hits the ground in ½ of a second. The paper clip weighs .5g, the tennis ball weighs 58.5g, the book weighs 256g, the bowling ball weighs 7260g , and his shoes weigh 1156.3g. Let y represent the weight of an object (in grams), and x represent the time it takes to hit the ground (in seconds).

   Slope:

   Sentence: