Warmup $10/(0.5 \times 10^{-20} \times 10^{20} \times 2)$ days until the spookiest day of the year

Created by Lilli Fullmer

1. Find the equation:



2. Your group (the whole table, not just your group of 3) will be a jeopardy team today. **Get a giant whiteboard, a graphing sheet, one marker, and eraser.** Also, choose your team name.

TEST ON THURSDAY!!

- Comparing tables, equations, and graphs
- Understanding the connection between a realworld situation and its equation
- Story problems
- Writing to explain!

Finish Group Story Problems

- 10 minutes to finish what you can
- EARLY FINISHERS: Compare/discuss HW answers!

A giant icicle has formed on the roof of the Lischwe house. The icicle is originally 3 feet long. However, the temperature is warming up, and it melts 3 inches every week. a) y = 36 - 3x (inches) or

- a) Write an equation to model the length of the icicle.
- b) Create an x/y table.
- c) If you graphed the values in the table, would you connect the dots? Why/why not?
- d) The inputs represent:
- e) The outputs represent:
- f) The slope is _____ and it represents:
 a) The v intercent is _____ and it _____ f)
- g) The y-intercept is ____ and it represents:

a)
$$y = 36 - 3x$$
 (inches) or
 $y = 3 - \frac{1}{4}x$ (feet)
b) x 0 1 2 3 4

X	0	1	2	3	4
у	36	33	30	27	24

- c) Yes, the #s in between make sense; the icicle melts gradually
- d) # of weeks
 - Length of the icicle
 - -3 or -1/4, amount melted per week
- g) 36 or 3, original length of icicle

Rick will participate in a walk-a-thon to raise money for charity. The amount he will raise based on the number of miles he walks is shown in the table, which represents a linear function.

Which of the statements is correct? Select ALL that apply.

Miles Walked	Amount Raised (\$)
2	220
5	460
8	700
11	940

If Rick walks 0 miles, he will raise \$0.

в

С

Ε

F

- If Rick walks 0 miles, he will raise \$60.
- If Rick walks 0 miles, he will raise \$80.
- **D** For each mile that Rick walks, he will raise an additional \$60.
 - For each mile that Rick walks, he will raise an additional \$80.
 - For each mile that Rick walks, he will raise an additional \$110.

- \$ per hour:
- \$240 every 3 hours
- \$80 per hour
- 2 miles is \$160
- He must have
 - "started" with \$60.

B and E

Two cars are traveling along the same highway, each at a constant rate. For both cars, "h" represents the number of hours spent driving, and "d" represents the distance, in miles, from San Francisco.

Select *all* the statements that are true. Pick up to 6 answers.

Hide

Hide

Hide

Car A: d = 60h + 20

Car B:	h	đ
	0	60
	2	160
	4	260

- A Car A is traveling at the same rate, in miles per hour, as Car B.
- **B** Car A is traveling at a faster rate, in miles per hour, than Car B.
- Hide Car A is traveling at a slower rate, in miles per hour, than Car B.
- Hide **D** Car A is originally closer to San Francisco than Car B.
- Hide Car A is originally at the same distance from San Francisco as Car B.
 - **F** Car A and Car B are at the same distance away from San Francisco after 4 hours.

Cal A. $u = 0011 + 20$				
Car B:	h	d		
	0	60		
	2	160		
	4	260		

 $Car A \cdot d = COh \cdot 20$

Car A:

60 miles per hour, originally 20 miles away <u>Car B:</u> 100 miles every 2 hours 50 miles per hour originally 60 miles away

B, **D**, **F**

Select *all* the statements that are true. Pick up to 6 answers.

Hide

- Hide **A** Car A is traveling at the same rate, in miles per hour, as Car B.
- Hide **B** Car A is traveling at a faster rate, in miles per hour, than Car B.
- Hide Car A is traveling at a slower rate, in miles per hour, than Car B.
- Hide **D** Car A is originally closer to San Francisco than Car B.
- Hide Car A is originally at the same distance from San Francisco as Car B.
 - **F** Car A and Car B are at the same distance away from San Francisco after 4 hours.

Bill & Will's Candy

- Bill had a giant bag of Skittles, and Will had a giant bag of M&Ms. Both feeling generous, they started giving out candy. After giving skittles to 10 people, Bill had 220 skittles left. After giving skittles to 15 people, Bill had 180 skittles left. Will gave out 12 M&Ms to each person, and after giving M&Ms to 20 people, he had 174 M&Ms left. Assume they each were giving out candy at a constant rate. (same # of pieces per person)
- A) Whose bag started with more candy? How many more pieces did that bag have?
- B) Who can give candy to more people before they run out? How many people can this person give candy to?

Bill & Will's Candy

• A) Whose bag started with more candy? How many more pieces did that bag have?

•	People	Bill's Skittles Left
	10	220
	15	180

<u>Will</u> 12 M&M's per person 174 left after 20 people

Bill & Will's Candy

• B) Who can give candy to more people before they run out? How many people can this person give candy to?

•	People	Bill's Skittles Left	
	10	220	
	15	180	

<u>Will</u> 12 M&M's per person 174 left after 20 people

Go over Story Problems WS

Jeopardy Expectations

- Need a sheet of paper labeled "Linear Jeopardy" with your name.
- Everyone shows the work on their own paper.
- Work will be turned in. Must have the work to claim your prize if you win.
- Group's final answer goes on the whiteboard.
- Raise your hand when your group is ready to get your answer checked.
- Loud groups will lose points.
- We will continue the game tomorrow.