Oakland CUSD #5

Algebra II

April 20-24, 2020

Emily Myers

Week of April 20-24, 2020
Ms. Myers

Hello everyone. Choose 2 of the following activities for the class you are enrolled in to complete for this week. All assignments may be turned in via google classroom. Take a picture or scan it in and turn it into the corresponding assignment. Or you may turn in paper copies to the office and they will get them to me. Both choices are due by Monday, April 13 at noon. Be sure to write whatever choice you are doing at the top of your page.

I will be at my computer for questions on Tuesday 10a-12p, Wednesday 3p-5p & Thursday 12p-2p.

Class	Choice 1	Choice 2	Choice 3	Choice 4	Choice 5
Algebra 2	Water Park Project Show all work!	Page 944 Lesson 1.6 #16-38 Show all work!	Page 945 Lesson 1.7 #7-26 Show all work!	Page 950 Lesson 3.2 Show all work!	Sharing Marbles Show all work!
Algebra 3/Trig	Complete the assignment that was assigned on Khan Academy.	Page 969 Lesson 9.2 Show all work!	Page 968 Lesson 8.7 even Show all work!	Page 968 Lesson 8.8 #1-18 Show all work!	Patterns in Pascal's Triangle Show all work!
Geometry	Geometry Construction Project 1	Page 205 Show all work!	Page 826 Lessons 3.5-3.6 Show all work!	Page 827 Lessons 3.7-3.8 Show all work!	Sharing Marbles Show all work!
Tech Math	Duct Tape/Pencil Pouch Project Show all work!	Integers Wkst Page 93 Show All Work!	Equations Wkst Page 102 Show all work!	Order of Operations Wkst Page 23 Show all work!	Sharing Marbles Show all work!

Alg. 2 Choice 1

Week of April 20-24
Ms. Myers
Water Park Project

Name_____

TASK 1: Designing your Park

You have recently been hired to create a blueprint for a water park. Your boss, Gelatinous Harrington, is a very controlling person. She wants you to include specific attractions and necessities in your design. Be prepared to answer her questions before you have had enough time to adequately explain what you are doing. First off, she wants it to be done on a large sheet of graph paper so that she can apply her mathematical knowledge to make the park the best it can be. She has issues and will yell at you if you do not do this properly. Before starting your blueprint, identify the center of your paper, and use a ruler to draw in the x and y axes. Then, you need to plot the approximate entrance points (where the line starts!) of each attraction on the graph paper and draw in the remaining part of the attraction around it in a creative fashion. Try to spread them out as much as possible. Use a pencil to draw the items and then go back and color them in with colored pencils.

Items to be included on the design are listed below:

-Help center
-Large whirlpool
-3 different water slides
(use your imagination)

-Toddler area
-Lazy river
-Concessions
-Gift shop
-Restrooms
-Security desk

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TASK 2: Naming Your Coordinates

After planning out the layout and design of each water park attraction, you must identify it's location by using ordered pairs. Use your "entrance points" as the attractions identifiable location, and fill in the chart below accordingly!

Location:	Ordered Pairs:
Help Center	(_____ , _____)
Large Whirlpool	(_____ , _____)
Water Slide #1	(_____ , _____)
Water Slide #2	(_____ , _____)
Water Slide #3	(_____ , _____)
Toddler Area	(_____ , _____)
Lazy River	(_____ , _____)
Concessions	(_____ , _____)
Gift Shop	(_____ , _____)
Restrooms	(_____ , _____)
Security Desk	(_____ , _____)

TASK 3: Calculating the Slope

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After identifying each attraction's location with ordered pairs, you are now ready to calculate the slope between attractions using the slope formula,

$$\frac{Y_2 - Y_1}{X_2 - X_1}$$

Using a RED pencil and a ruler, MARK the direct path to/from the locations mentioned below. Calculate the slope of the line that is formed, and show your work in the space provided.

Help Center to Water Slide #1	Toddler Area to Concessions
Gift Shop to Restrooms	Security Desk to Water Slide #2
Lazy River to Large Whirlpool	Help Center to Gift Shop
Restrooms to Water Slide #3	Concessions to Lazy River
Water Slide #1 to Water Slide #2	Water Slide #2 to Water Slide #3

Task 4: Writing Linear Equations.

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In task 3 you identified direct paths between various park attractions by drawing them in with red lines. Now, you will show off your skills by writing equations for each of those red lines.

Help Center to Water Slide #1 Y = _____ X + _____	Toddler Area to Concessions Y = _____ X + _____
Gift Shop to Restrooms Y = _____ X + _____	Security Desk to Water Slide #2 Y = _____ X + _____
Lazy River to Large Whirlpool Y = _____ X + _____	Help Center to Gift Shop Y = _____ X + _____
Restrooms to Water Slide #3 Y = _____ X + _____	Concessions to Lazy River Y = _____ X + _____
Water Slide #1 to Water Slide #2 Y = _____ X + _____	Water Slide #2 to Water Slide #3 Y = _____ X + _____

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Sharing Marbles

Choice 5

Some math problems have one answer, some have many answers, and some have no answer! Find as many answers as you can to these problems and show how you figured them out. If a problem does not have an answer, explain why.

Pablo has some marbles in a bag. He wants to share all of them equally with his friends.

1. Pablo has fewer than 30 marbles in his bag.

He shares them between 3 friends and there is one marble left. He shares them between 4 friends, and there is one marble left.

How many marbles were in the bag?

2. Pablo has fewer than 50 marbles in his bag.

He shares them between 3 friends and there is one marble left. He shares them between 4 friends, and there is one marble left. He shares them between 5 friends, and there are no marbles left.

How many marbles were in the bag?

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3. Pablo has fewer than 100 marbles in his bag.

He shares them between 3 friends and there is one marble left. He shares them between 4 friends, and there is one marble left. He shares them between 5 friends, and there is one marble left. He shares them between 6 friends, and there are no marbles left.

How many marbles were in the bag?

4. Pablo has many marbles in his bag.

He shares them between 3 friends and there is one marble left. He shares them between 4 friends, and there is one marble left. He shares them between 5 friends, and there is one marble left. He shares them between 6 friends, and there is one marble left. He shares them between 7 friends, and there are no marbles left.

How many marbles were in the bag?

5. Create your own problem about sharing marbles. Then solve it!