

Tuesday, March 17, 2020

Hello 8<sup>th</sup> Grade Math Students and Families,

What an interesting time we live in! We first wanted to tell students and families that we are grateful for the patience and effort you are putting in during these weeks we will be out of school. Please keep yourselves healthy and safe, and we will be providing you with as much information as possible via our online services such as Skyward email and the Remind app.

Additionally, specifically for mathematics, we have developed a plan to move our mathematics courses online through Khan Academy. Students will receive instructional videos, assignments and “quizzes” through this website. In addition, students will also have a project to complete over the next four weeks (one week set aside for Spring Break! 😊).

Your first assignment, due this Friday, is to create an account on Khan Academy and add the correct class. All students must be ready to start their online assignments on Monday, 3/23/2020. If you do not have access to online resources, please contact your teacher or the school for information on getting technology resources and/or paper copies of the material. Here are the instructions to add a class on Khan Academy:

1. Go to [www.khanacademy.org/join](http://www.khanacademy.org/join)
2. Enter your class code and press “Add”
  - a. Mrs. Warn’s 2<sup>nd</sup> Period Class: **F4KHGTVP**
  - b. Mrs. Warn’s 6<sup>th</sup> Period Class: **CUGJ2QNK**
  - c. Mrs. Brewer’s 4<sup>th</sup> Period Class: **7ZZRW8FM**
  - d. Mrs. Brewer’s 5<sup>th</sup> Period Class: **H3K2V392**
  - e. Mrs. Brewer’s 6<sup>th</sup> Period Class: **5Z2GGP43**
3. If you don’t have already have an account, press “Create a new account”. Enter your date of birth, then sign up using Google, your school email, or by creating a username.
4. Enter your grade (of the math you are learning, not the grade level you are) and course. Now you’re ready to start learning!

Once you have your account active, you will see a place for Assignments on your dashboard along the left side of your screen. Here is where your weekly videos and practice assignments will be posted. Please note – you may not see this yet! Your teacher will be adding assignments as the weeks go, so as to not overwhelm or confuse anyone. The assignments section will appear once the assignment has been assigned. Please see the picture at the bottom of this document for a visual!

During this time, we will be reviewing the concept of linear equations, starting with how to solve multi-step equations and equations with variables on both sides. Here is a rough timeline that we have worked out for our cool online experience:

Week	Dates	Khan Academy	Project
One	3/23 – 3/27	<u>Module 4, Topic A</u> 9 videos 6 practice sets Quiz 1	<u>Week One</u> Part I. Expenses Part II. Route
Two	3/30 – 4/3	<u>Module 4, Topic B</u> 8 videos 4 practice sets Quiz 2	<u>Week Two</u> Part III. Vehicle Expenses Part IV. Calculating Costs
Three	<b>SPRING BREAK – NO SCHOOL 😊</b>		
Four	4/13 – 4/17	<u>Module 4, Topic C</u> 18 videos 9 practice sets 3 articles Quiz 3	<u>Week Three</u> Part V. Sponsorship
Five	4/20 – 4/24		<u>Week Four</u> Part VI. Comparing Plans

It is expected that students will be “turning in” their project assignments weekly (Fridays) by taking a picture of their work and sending it to their teacher via email or the Remind app. For those of you that do not have that option, paper copies of the project will be available for pick up, or sent to you, and you will need to turn them in weekly to the school.

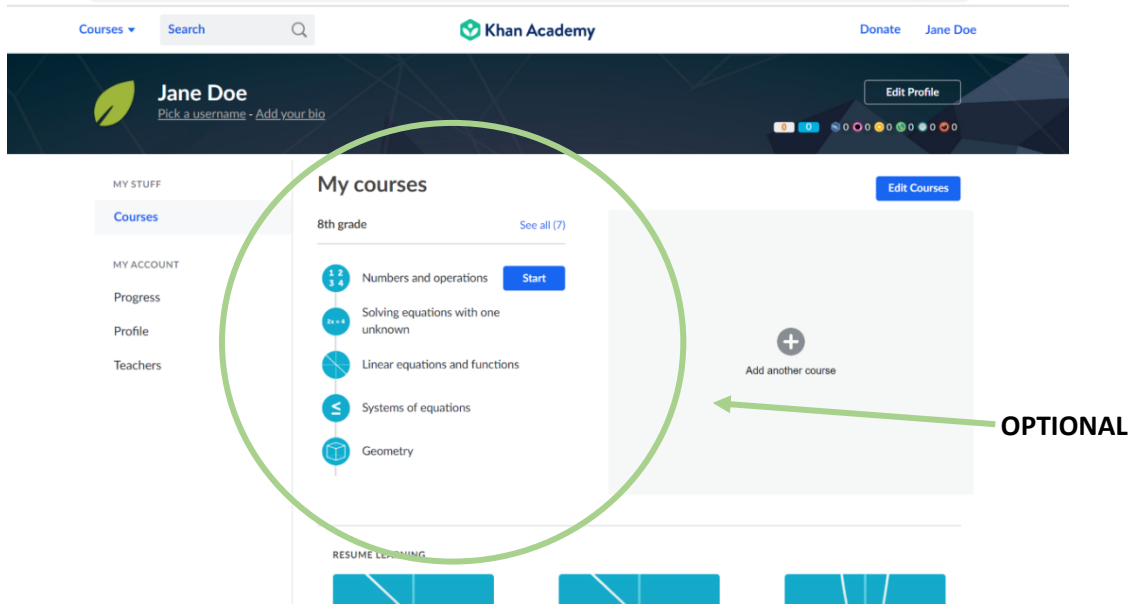
Please know that details are still being worked out, and all of the information in the material is subject to change. We do not know what new information may be coming to all of us in the coming days or weeks. We will keep you up to date when we get new information through email and the Remind app.

If you have any questions or get stuck on any of the content, please know that you can always email your teacher or message them on the Remind app for help. There may also be additional resources available online that your teachers will share with you during the coming weeks. Know that we miss seeing you around the halls here at Hawkins Middle School, and look forward to reconnecting in April!

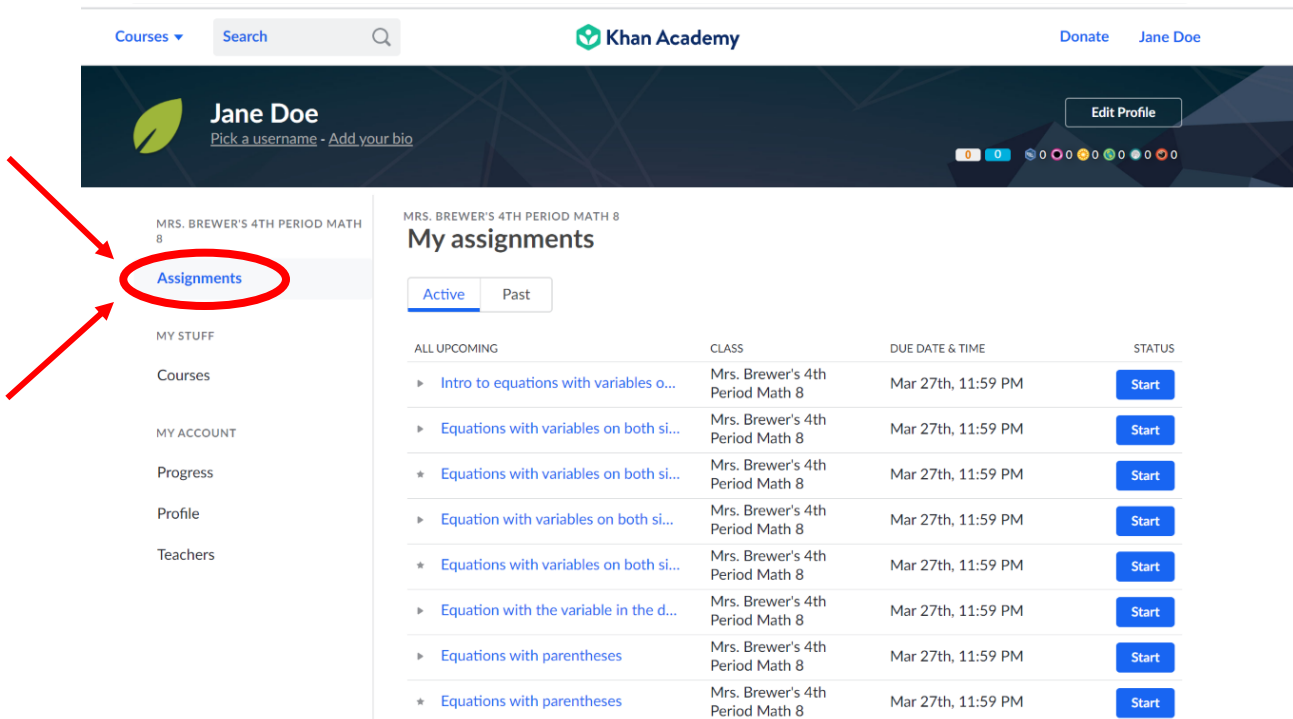
Sincerely,  
Mrs. Brewer and Mrs. Warn

## Khan Academy Visuals

When you first add your account, your dashboard will most likely look similar to this: Notice that there is no “Assignments” section at the top left corner. You DO NOT have to complete any of the content detailed under “My courses” – this would be great review, though! 😊



Once your teacher assigns something to you, you will then see the assignment tab appear at the top left corner. This is where you will get all of your required assignments, and where you should look each day. The teacher will be able to see when the assignments are done.



Hello 8<sup>th</sup> Grade Math Students!

Welcome to your online course's project for the coming weeks! You will have all 4 weeks to complete this project, so don't feel rushed for time. We recommend you follow the timeline that will be detailed below, because this project is NOT meant to be done the week before we get back.

Read each week's instructions carefully. The overall goal is for you to plan a road trip, starting in New York City, to any destination that can be reached by road; you cannot go across an ocean in a modern car! You will be asked questions on who is going, how much it will cost, what you are driving, and where you are staying. You will also be asked to write equations based on your findings, and then graph those equations.

If you come across a set of instructions that you do not understand, or you do not know how to start a problem, please email your teacher or ask your family for help! We look forward to hearing what trip you have planned when you get back to school in April.

Stay safe, and we look forward to seeing you again soon!

Sincerely,

Mrs. Brewer and Mrs. Warn

Name: \_\_\_\_\_ Period: \_\_\_\_\_



## Application for the ILLEST ROAD TRIP OF ALL TIME<sup>©</sup>

### Introduction:

If you received this application, it means you may be selected to appear on “Illest Road Trip of All-Time.” IRT is a new show where groups of people get \$10,000 for a road trip that will be a “unique, life-changing, and eminently watchable experience”. The money you spend will mainly go towards two things your vehicle (rental and gas), and your daily expenses (Hotel and Food). Plan carefully, **groups who do not plan to spend at least \$9500 of the money will not be considered.**

The possibilities for your trip are limited only by your ability to budget the money. MTV can drive its production vans anywhere in North America and has relationships with gas stations, hotels, and restaurants to provide you with what you need to finish your journey. You can take as many stops as you wish as long as you start and finish in New York City. You could take a trip as short as 1 week or as long as 31 Days. You can use the money on a solo drive from the beaches of Cancun to the Mountains of Alaska and stop by California on your way back. The trip cannot go across the Atlantic Ocean to Europe, or across any other body of water, because a “Road Trip” needs to take place on an actual road, not a boat. You can also use your money to take up to 7 of your friends on a lavish trip up and down the Jersey Shore.

MTV wants to support an impressive and detailed trip, and one of the most important things to show is that you can manage the money well. That means you need your trip to fall between \$9,500 and \$10,000. As long as the ideas are well thought out, MTV will consider any proposal.

Name: \_\_\_\_\_ Period: \_\_\_\_\_

## WEEK ONE: (3/23 – 3/27)

### Application Abstract

Who will attend the trip? Bring up to 7 other people. On the lines below write the names of your friends, family, and even famous celebrities (MTV can pull strings):

- |                       |          |
|-----------------------|----------|
| 1. _____<br>Your Name | 2. _____ |
| 3. _____              | 4. _____ |
| 5. _____              | 6. _____ |
| 7. _____              | 8. _____ |

### Part I. Expenses

Expenses - Your main expenses for this trip, outside of the car, will be food and lodging, which are calculated separately. MTV will provide you with three different types of Food and Lodging.

Food:		
★★★★★ \$200/day per person High Quality Cuisine in Fancy Restaurants	★★★ \$100/day per person Healthy nutritious meals in family-style diners	★ \$25/day per person Dollar Menu items in fast-food joints
Lodging:		
Luxury Suites \$500/day - up to 8 people in each Luxury Suite Hotel Rooms \$100/day - up to 4 people in each Hotel Room Campground \$25 /day - up to 4 people at each campground		
Baggage:		
Designer Brand Luggage \$300 for each person High Quality Duffel Bags \$75 for each person Plastic Bags / No Luggage \$0 for each person		

1. Using this information what type of food and lodging would you like to choose **and why?**

\_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_ Period: \_\_\_\_\_

- 
2. Given the number of people that are going on the trip, what is the total amount you will you spend on food and lodging **each day**?

\_\_\_\_\_  
Total Food & Lodging Per Day

3. Given the number of people that are going on the trip, what is the total amount you will you spend on luggage **for everybody**?

\_\_\_\_\_  
Total Baggage Expense

4. Now use the amount you spend on Daily expenses to make an equation in  $y = mx + b$  form that will give you the expenses ( $y$ ) for any given amount of days ( $x$ ).

**Total Expense equation:** \_\_\_\_\_

Name: \_\_\_\_\_ Period: \_\_\_\_\_

## Part II. Route



Create a Map for your trip using Bing Maps

(<http://www.bing.com/maps>).

- a. Go the website
- b. Click 'Get Directions'
- c. Enter your starting address in NYC
- d. Enter your destination(s)
- e. Click 'Add to route' before writing in your next destination you want to include more places
- f. If you have more destinations, enter each and click 'Add To route' each time.
- g. When finished, click 'Add To Route' one final time and enter your ending address in NYC
- h. Click 'Get Directions'
- i. Look over your route, if you want to change it, Click 'Edit Route' in the top left
- j. Once your route is good, write down the information about your route below. (If you do not have enough space, please input only the destinations in the space below and the total miles and hours. Attach printed versions of the full directions set)

**A**

**B**

[add destination](#) [show options](#)

Starting Point \_\_\_\_\_

\_\_\_\_\_ Miles

\_\_\_\_\_

\_\_\_\_\_ Hours

\_\_\_\_\_

End Point \_\_\_\_\_

1. If MTV only allows people to drive at maximum 10 Hours each day, what is the smallest number of days you could spend driving?
2. If your trip ends up being 31 days, and you spread the driving out over each day, how many hours would you spend driving each day?



Name: \_\_\_\_\_ Period: \_\_\_\_\_

## **IF YOU DO NOT HAVE INTERNET ACCESS FOR PART II:**

Here is a sample trip that you may use, starting in New York City, stopping in Washington DC, and ending at Disney World!

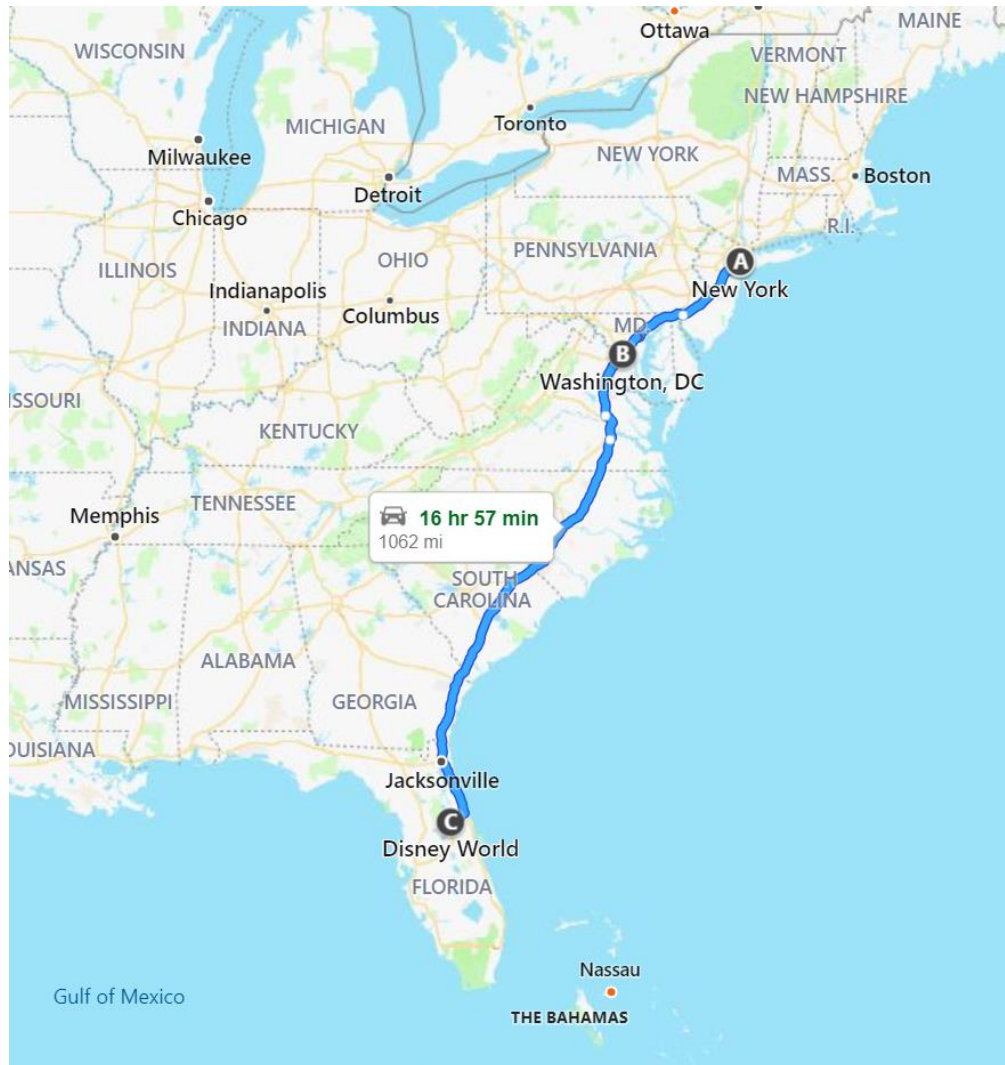
Total Trip Time: 16 hours and 57 minutes

Total Distance: 1,062 miles

### Trip Breakdown

From New York City to Washington DC: 4 hours and 14 minutes. (231.2 miles)

From Washington DC to Disney World: 12 hours and 43 minutes. (830.9 miles)








Name: \_\_\_\_\_ Period: \_\_\_\_\_

**WEEK TWO: (3/30 – 4/3)**

**Part III. Vehicle Expenses**

MTV will allow you the free use of the following vehicles for your trip because they have product placement deals. Make sure you have enough room for all of your passengers. Pay attention to the Miles Per Gallon (MPG), you will have to pay for gas as well.

				
Suzuki TU250x \$22/Day 2 Passengers 70/82 MPG CITY/HWY	Honda Prius \$34/Day 4 Passengers 51/48 MPG CITY/HWY	Audi A4 Cabriolet \$67/Day 4 Passengers 21/29 MPG CITY/HWY	Cadillac Escalade Hybrid \$98/Day 8 Passengers 21/22 MPG CITY/HWY	Lamborghini Murcielago* \$160/Day 2 Passengers 8/13 MPG CITY/HWY

1. What type of vehicle did you choose and why?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Once you choose a vehicle, use the MPG to find out how many gallons it will take you to finish your trip. (Total miles divided by MPG)

\_\_\_\_\_

Gallons of Gas Needed

3. MTV will have gas available throughout the trip at their corporate rate of \$2.80/gallon. How much will your total cost on gas be? (Gallons times \$2.80)

\_\_\_\_\_

Cost of Gallons of Gas Needed

4. Now use the amount you spend on the Vehicle Rental and on Gas to make an equation in  $y = mx + b$  form that will give you the expenses (y) for any given amount of days (x).

Total Vehicle Equation \_\_\_\_\_

Name: \_\_\_\_\_ Period: \_\_\_\_\_

### Part IV. Calculating Costs

Use the equations to calculate the cost of a 1, 2, 3, or 4 week trip. Write your results in the table, show your work for at least one example below.

Days	Vehicle Cost - (Check Part IV) Y= _____	Food and Lodging Cost - (Check Part I) Y= _____	Total Cost
7			
14			
21			
28			

Show your work below

If you can't find a suitable trip in the table above, then you should be able to use the tables below to determine what the longest possible trip could be. REMEMBER THE TRIP MUST BE BETWEEN \$9,500 AND \$10,000. Try different lengths of trips in the spaces below.

Days	Vehicle Cost - (Check Part IV) Y= _____	Food and Lodging Cost - (Check Part I) Y= _____	Total Cost

5. It might be that no length trip would work, if that is the case adjust your equations by choosing different values for hotels, cars, food, etc. Then, go through and total up all these equations again. Additionally, if you had to change any of your equations explain your changes below.

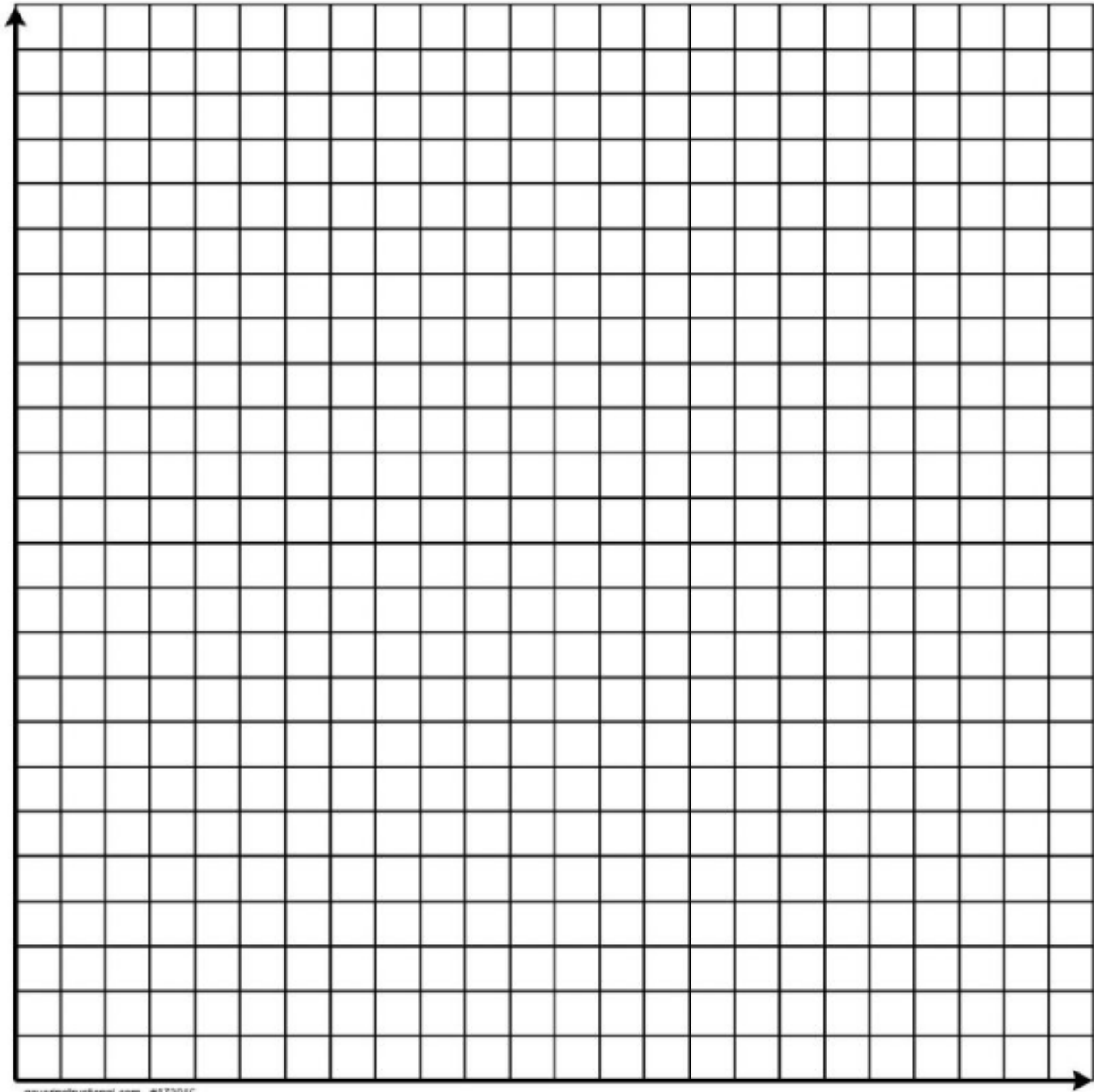
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_ Period: \_\_\_\_\_

6. Graph two equations or the total two equations below. Include labels on the x and y axis, a title, a key, and very neat graph. You MUST use a straightedge to graph your lines!



www.mathworksheetsland.com #173016

Name: \_\_\_\_\_ Period: \_\_\_\_\_

### WEEK FOUR: (4/9 – 4/13)

#### Part V. Sponsorship

MTV regularly has offers from companies for “Product Placement” in their reality shows. Companies will pay MTV, and you, to if their products appear in the show. Coca Cola, Pepsi and Snapple have both agreed to pay participants if their products appear on the show, but participants must choose only one deal the amount depends on the length of your trip.

1. Use the information to find an equation ( $y = mx + b$ ) for the amount of Sponsorship Money ( $y$ ) you can make for each day of the trip. Show your work and explain your steps below.

Coca Cola	
5 Days	\$134
10 Days	\$164
15 Days	\$194
20 Days	\$224

Pepsi	
10 Days	\$160
20 Days	\$260

Snapple	
9 Days	-\$30
19 Days	\$190

Coca Cola: \_\_\_\_\_ Pepsi: \_\_\_\_\_ Snapple: \_\_\_\_\_

2. Demonstrate how you know the equations work by checking your answer in the original equation. Plug in your values for  $x$  and  $y$ .

3. Explain in words how you found the equation for Coca cola and Pepsi.

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**WEEK FIVE: (4/13 – 4/17)**

**Part VI. Comparing Plans**

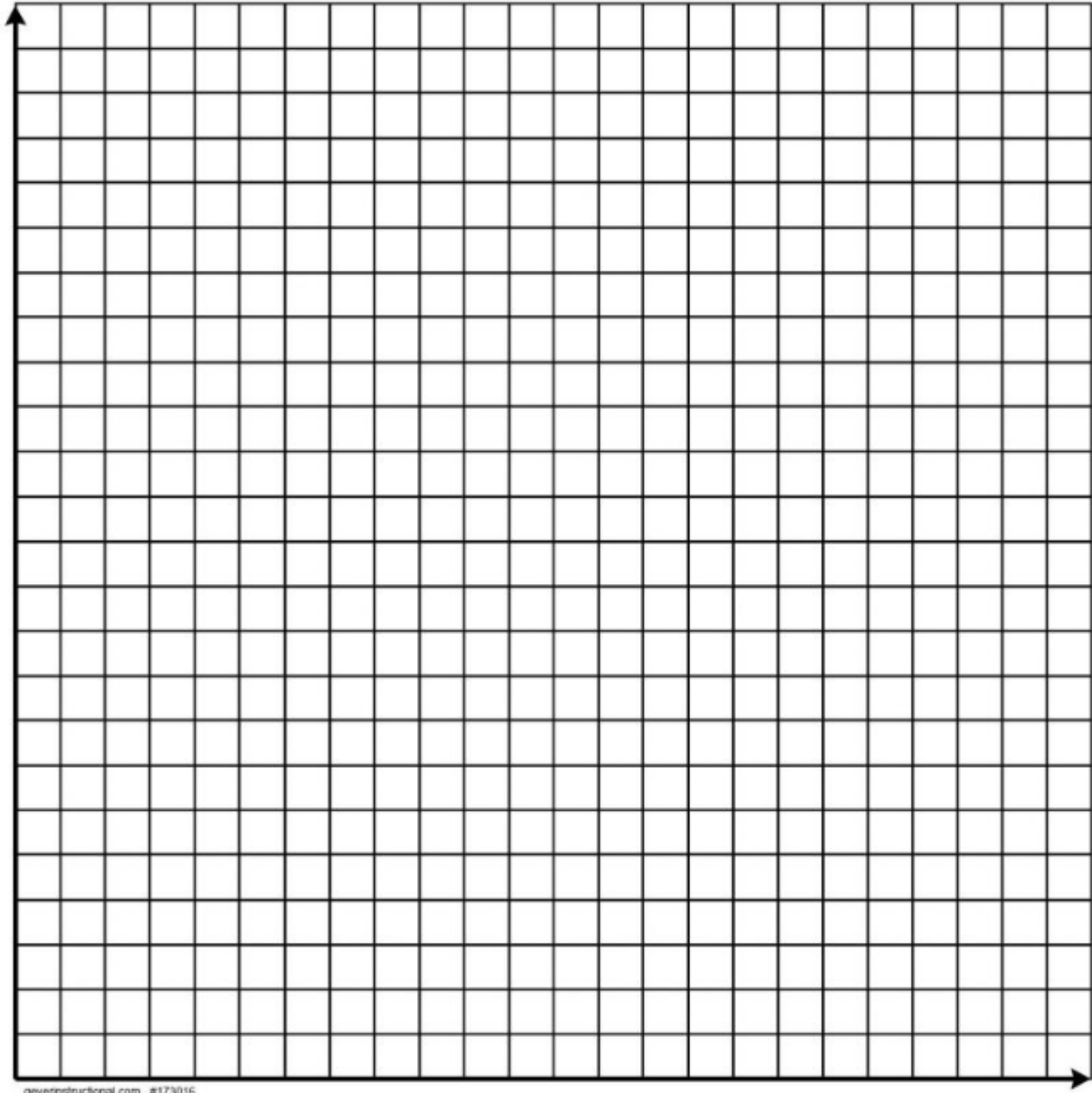
Use your equations from Part III to find out how much you'll make with each plan for 1, 2, 3, and 4 weeks.

Days	Coca Cola $Y = \underline{\hspace{3cm}}$	Pepsi $Y = \underline{\hspace{3cm}}$	Snapple $Y = \underline{\hspace{3cm}}$
<b>7 days</b>			
<b>14 days</b>			
<b>21 days</b>			
<b>28 days</b>			

1. On what day would Pepsi and Coca Cola pay the same amount? Solve the system of equations and show your work. You may use substitution or elimination to solve.
  
2. On what day would Coca Cola and Snapple pay the same amount? Solve the system of equations and show your work. You may use substitution or elimination to solve.
  
3. On what day would Pepsi and Snapple pay the same amount? Solve the system of equations and show your work. You may use substitution or elimination to solve.

Name: \_\_\_\_\_ Period: \_\_\_\_\_

4. Use the coordinate plane below to graph all three equations for Pepsi, Snapple and Coca Cola.



5. Where on the graph does it show the best company to choose?