

Trigonometry

Mr. Joseph

Week of: April 6-17, 2020

Contact information

Mr. Joseph
djoseph@fairhavenps.net

Google classroom code:
Period 1: jwrcbab

Google classroom code:
Period 5: ixjvlrz

- This week we will be reviewing the concepts of Bearing. If anyone is having trouble, please reach out ASAP either by email or google classroom.
 - We worked hard to ensure that the Learning Plan provides accessibility for all learners. We hope that you see that there are options to engage learners at all levels. *These activities are not intended to replace the normal school day.* There is now an expectation for students to turn these documents in to your specific educators. We want you to take time to enjoy family, be safe, stay healthy and find time within this week to engage in learning opportunities. Feel free to create a schedule that works for you and your family. We strongly encourage each student to participate in approximately two hours a day. We want your brain working and challenging yourself, while staying safe and having fun.
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❖ **Enrichment Activity #1:**

- **Time frame:** 4 Hours (split over 2 weeks)
- The objective of this enrichment activity is to help you better understand bearing and to utilize a number of different algebra and geometric concepts to help you complete a real world type problem.
- Any questions post them on google classroom so that everyone can see the question and anyone can try to help. Please try to collaborate and help each other.
- This is a challenging activity and I want you to try and have fun with it. Do a little bit everyday and you will be successful.
- I have included an example of the general rough map. I made the numbers up so they are not exact. It is for a visual example only.

*******This project will be the work for the next 2 weeks and will be due on Friday April 17*******

TRIGONOMETRY

Bearing Project

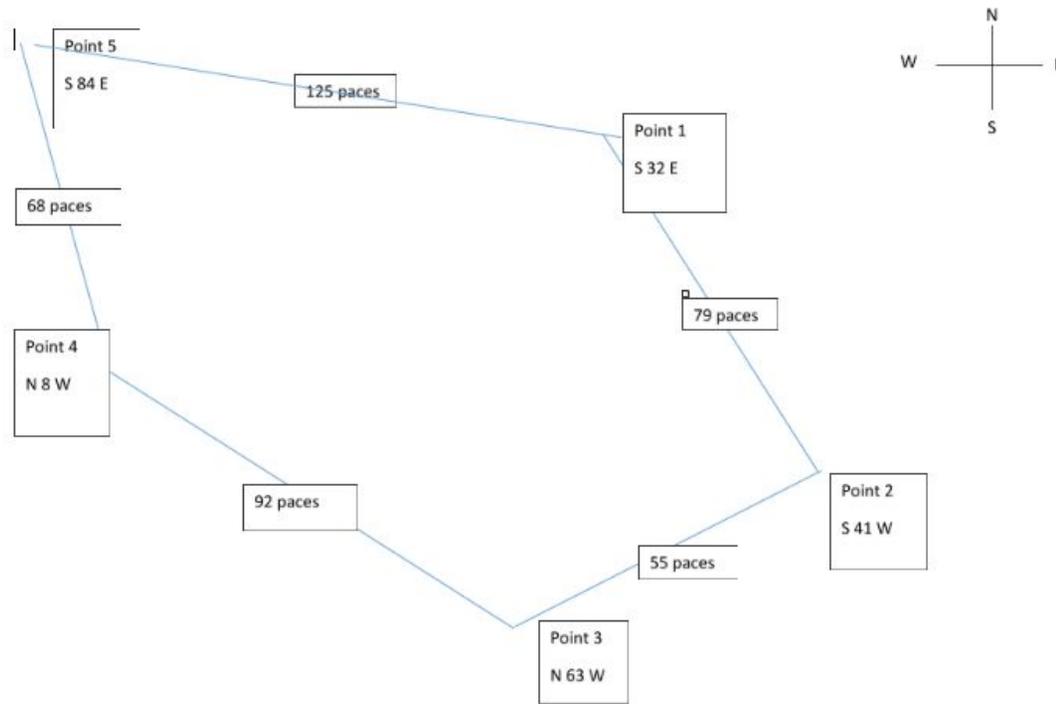
For this project you will be going outside (respecting social distancing guidelines) and creating a general map and detailed map of an area of your choice. The map can be of your backyard, the local park, or anywhere else that you can practice social distancing. You do need a little space to create a good picture. The map should consist of 5 points. The points are decided by you. For example, you could start at the corner of your driveway and the street and label it point 1. Point 2 could be a tree in your yard or the corner of your house. Continue choosing a total of 5 points that create a polygon (a closed figure).

The first part of the map will be the bearings between the points. You will need a compass to do this whether an actual compass or a compass on your smartphone. Once your 5 points have been chosen start at point 1 and find the bearing to point 2 using your compass. Move to point 2 and then find the bearing to point 3 using your compass and continue finding the bearings until you get back to point 1.

The second part of the map is the distance between the points. Walk from point 1 to point 2 at a constant speed and count your paces. Do the same from point 2 to point 3 and so on until you get back to point 1. You may want to pace the points 2 or 3 times and take the average number of paces to be a little more accurate.

The third part will be to create a general rough map. It does not matter if the map is hand drawn or you want to use some sort of technology. Create a map just showing the 5 points with the bearings labeled and the number of paces labeled. It should not include any other details.

Sample of a general rough map including the bearings and number of paces labeled is below:



Finally create a **detailed** map of the area you chose including the 5 points.

- Put details into the map; trees in the area, or basketball hoops and label these objects.
- Include the interior angle of the polygon, don't include the bearing and on this final map don't include the paces but include the distance in feet.
- This is the challenge for you. Try to find the actual distance between the points without directly measuring. Do some research and see if you can find a way, maybe you can use triangles.

*****Submit both maps under the classwork section of Google classroom. I will create the space for you to submit.*****

***If you have any questions post them on the stream in Google classroom so we can all see the questions and others may be able to help answer your questions. Help each other.

This is also new for me so if some of the wording in the project is unclear please let me know. Don't be shy.

