Spider-ville🕸

Names of all Group Members:
Member 1: CJ
Member 2: Gillian
Member 3: Genesis

Welcome to Spider-ville! A town built in dedication to the beloved Spider-man(s). After the chaos of the multiverse our beloved founders found themselves in an unknown inhabitable place, called Web. They decided to create a town, where their legacies will live on forever. Our beautiful town can be divided into 4 equally important quadrants: The Maguire Quadrant, The Holland Quadrant, The Garfield Quadrant, and The Villain Quadrant. Each quadrant has something special to offer, so make sure to visit every single one during your visit! You might be asking yourself, why did our founding fathers dedicate a quarter of their town to their enemies? Our main core values are to forgive, be responsible, respect, and to work together as a whole, which our founding fathers learned were essential after their long journeys of hard work. To grow as an individual and to encourage those around you to do the same, one must practice these core values. As our national anthem says, “With great power comes great responsibility”.


Holland Highway
Garfield Avenue
DUNST ROAD
Franko Way
STONE ROAD
Miguire Road
DeHaan Lane
Coleman Highway
Holland hospital
Peter park
Happys diner
Carriage Deli/Butcher
Electro Electricity
Morbius Escape Room
Venom Fitness
OSCorp Research Lab
MIGUIRE CAR WASH
DZ Pharmacy
MART SAID MALL
PARKER PASTA
Parker Post Office

Designer: CJ Wright

My quadrant is the Garfield quadrant. This quad is dedicated to The Amazing Spider Man. Our roads feature name dedications to the actors in the 2 film series and the buildings found here are dedicated to some of the most important people in the films.

Map and Instructions of Quadrant:

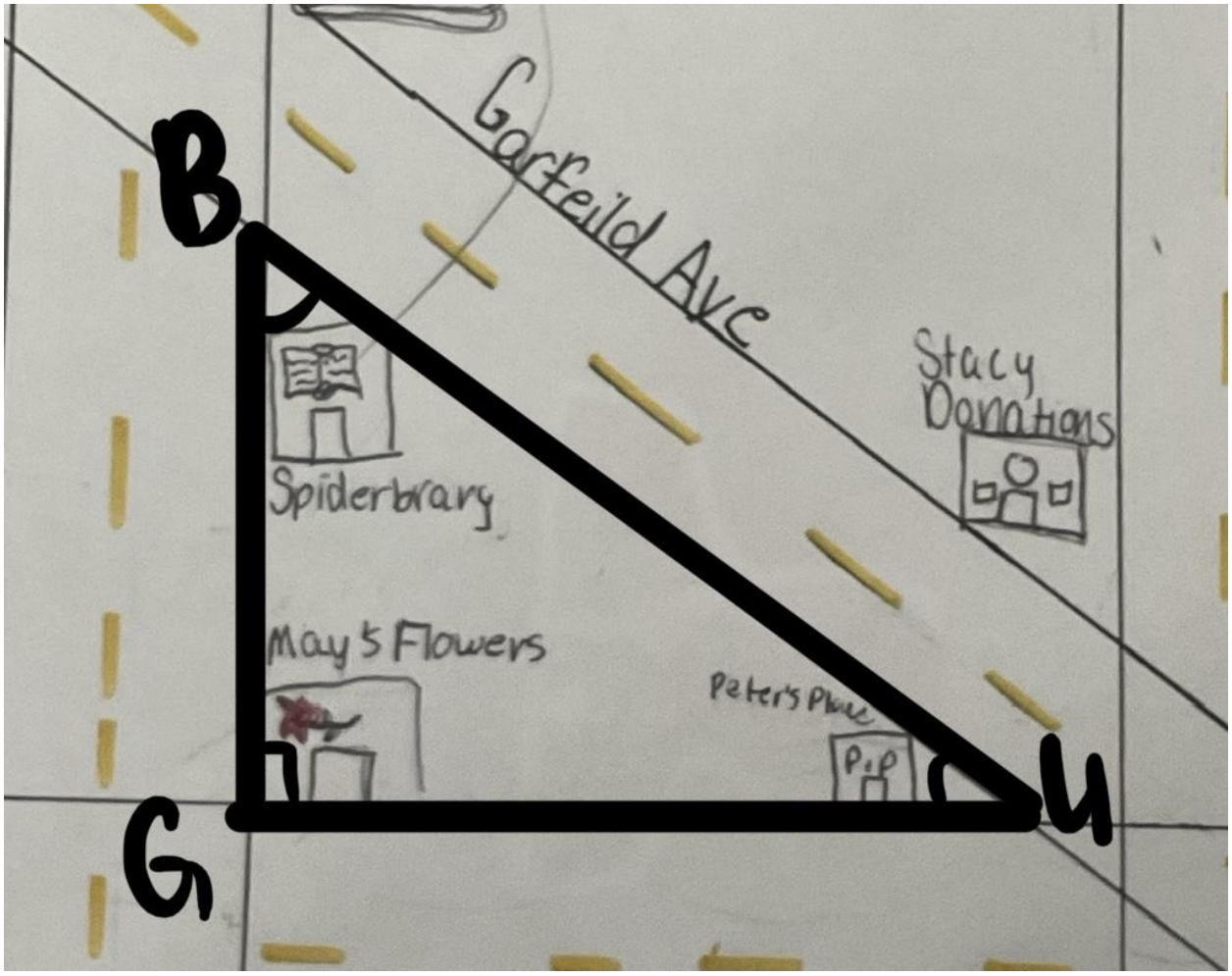
Places to be in the Garfield Quadrant:

Osborne Greenhouse
Spiderbrary
May's Flowers
Peter's Place convenience store
Stacy Donations
Parker Post Office
Spiderman Square Park
Parker Playhouse Arcade
Richard Parker Bank
Stacy Memorial Hospital

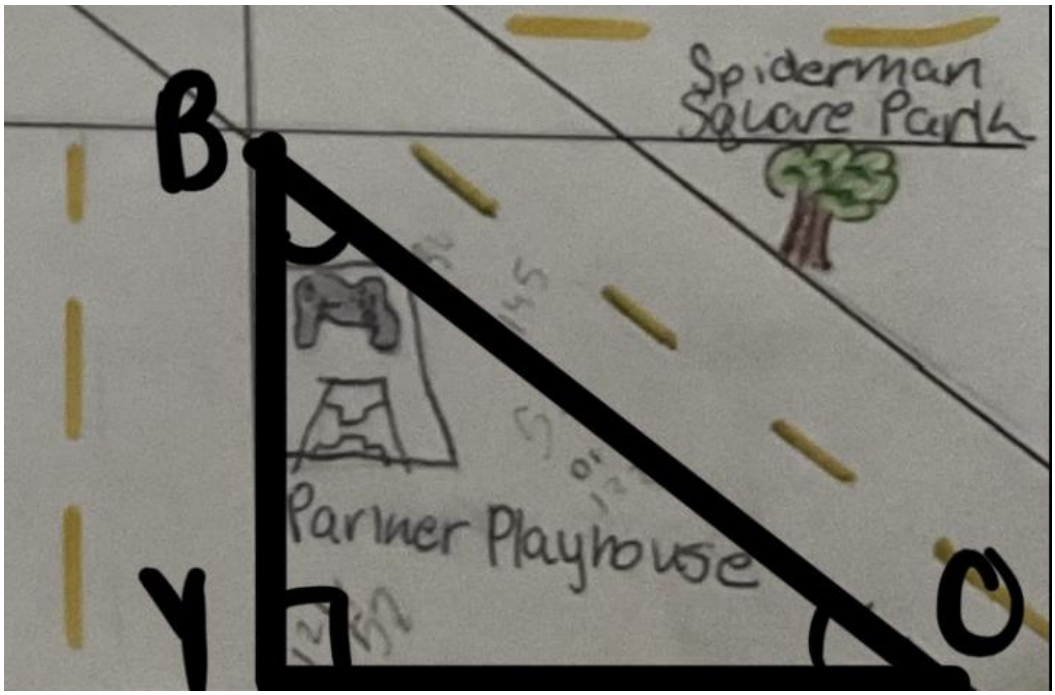
How to get around in the Garfield Quadrant:

1. Stone Road, which is West, and Dehaan Lane, which is East, are **Parallel Lines** and run from North to South.
2. Coleman Highway, which runs West to East and is further South, and Stone Road, which runs North to South and is further West, are **Perpendicular Lines**.
3. Garfield Avenue, which runs Northwest to Southeast, and DeHaan Lane, which is further East and runs North to South, are a set of **Intersecting Lines.**
4. Coleman Highway, which runs West to East and is further South, and Stone Road, which runs North to South and is further West,**(1)** Garfield Avenue, which runs Northwest and Southeast, and DeHaan Lane, which is further East and runs North to South,**(2)** and Coleman Highway, which runs West to East and is further South,and DeHaan Lane, which is further East and runs North to South,**(3)** are **Intersections**.
5. Garfield Avenue, which runs Northwest and Southeast is a **Transversal**.
6. Osborne Greenhouse is located at an **Acute Angle** that is North West and formed by Garfield Avenue and Stone Road.
7. Richard Parker Bank is located at an **Obtuse Angle** that is North and formed by Garfield Avenue and Stone Road.
8. Gwen Stacy Memorial Hospital is located on a **Right Angle** that is West formed by Coleman Highway and Stone Road.

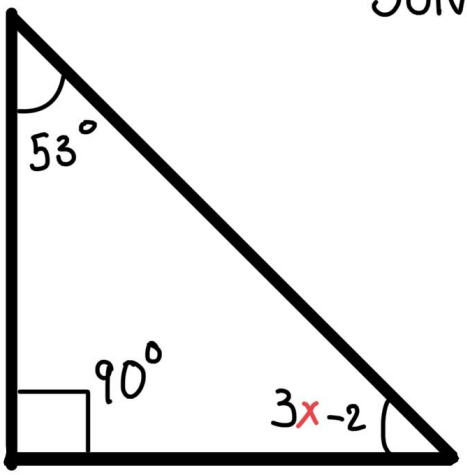
9. The Spiderbrary ,which is North, May's Flowers, which is South, and Peter's Place, which is East, are located in a **Right Triangle** formed by Coleman Highway, Stone Road and Garfield Avenue.
10. Parker Playhouse, which is Southeast and located in another **Right Triangle** formed by Garfield Avenue and DeHaan Lane.
11. Richard Parker Bank and the Spiderbrary, which are both North, are a **Linear Pair** formed by Stone Road and Garfield Avenue.
12. Richard Parker bank, which is North, and Stacy Donations, which is further East, are **Consecutive Angles** formed by Garfield Avenue, Stone Road and DeHaan Lane.
13. Richard Parker bank, which is North, and Peter's Place, which is Southeast are **Alternate Interior Angles** formed by Garfield Avenue, Stone Road and DeHaan Lane.
14. Osborne Greenhouse, which is further Northwest, and Parker Playhouse, which is Southeast, are **Alternate Exterior Angles** formed by Garfield Avenue, Stone Road and DeHaan Lane.
15. Stacy Donations, which is East, and Peter's Place, which is Southeast, are **Adjacent Angles** formed by Garfield Avenue.
16. Osborne Greenhouse, which is Northwest, and the Spiderbrary, which is southeast, are **Vertical Angles** formed by Stone Road and Garfield Avenue.



GU= 2.5, BG=3.5	Given
$a^2 + b^2 = c^2$	Pythagorean Theorem
$(GU)^2 + (BG)^2 = (BU)^2$	Substitution
$2.5^2 + 3.5^2 = (BU)^2$	Substitution
$6.25 + 12.25 = (BU)^2$	Simplify
$18.5 = (BU)^2$	Addition
$4.30 = BU$	Square root

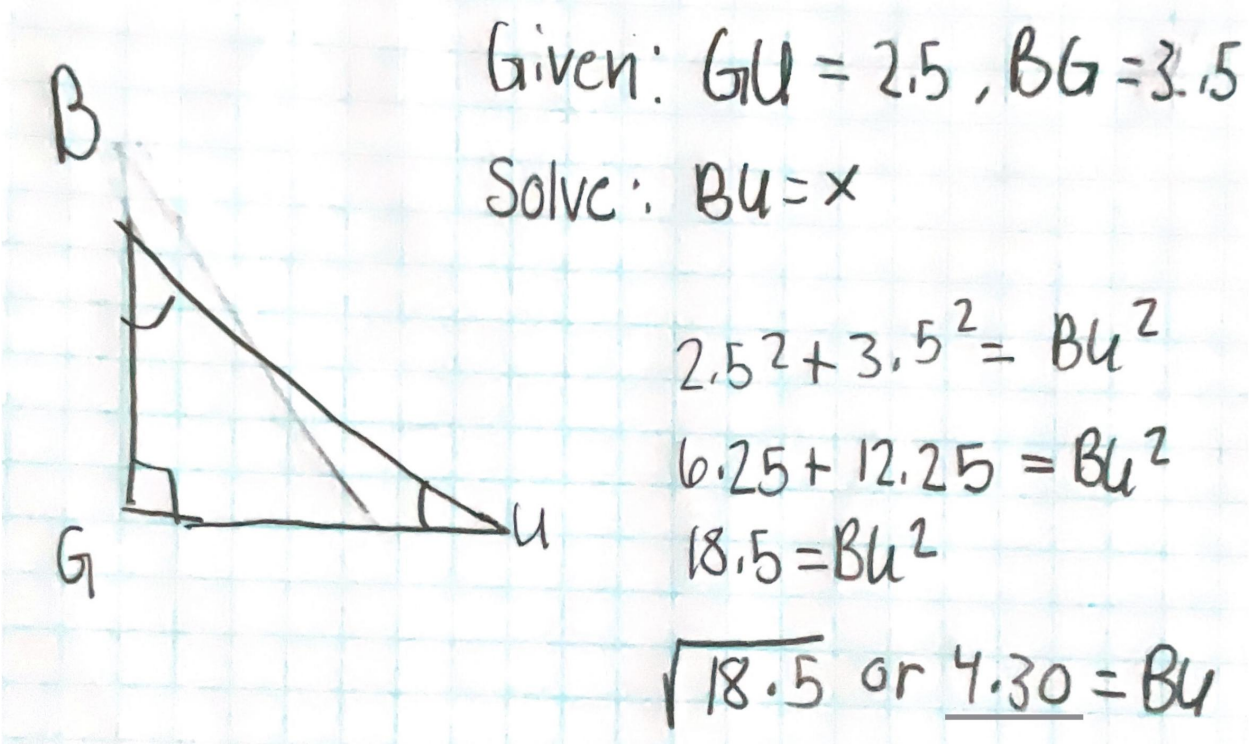


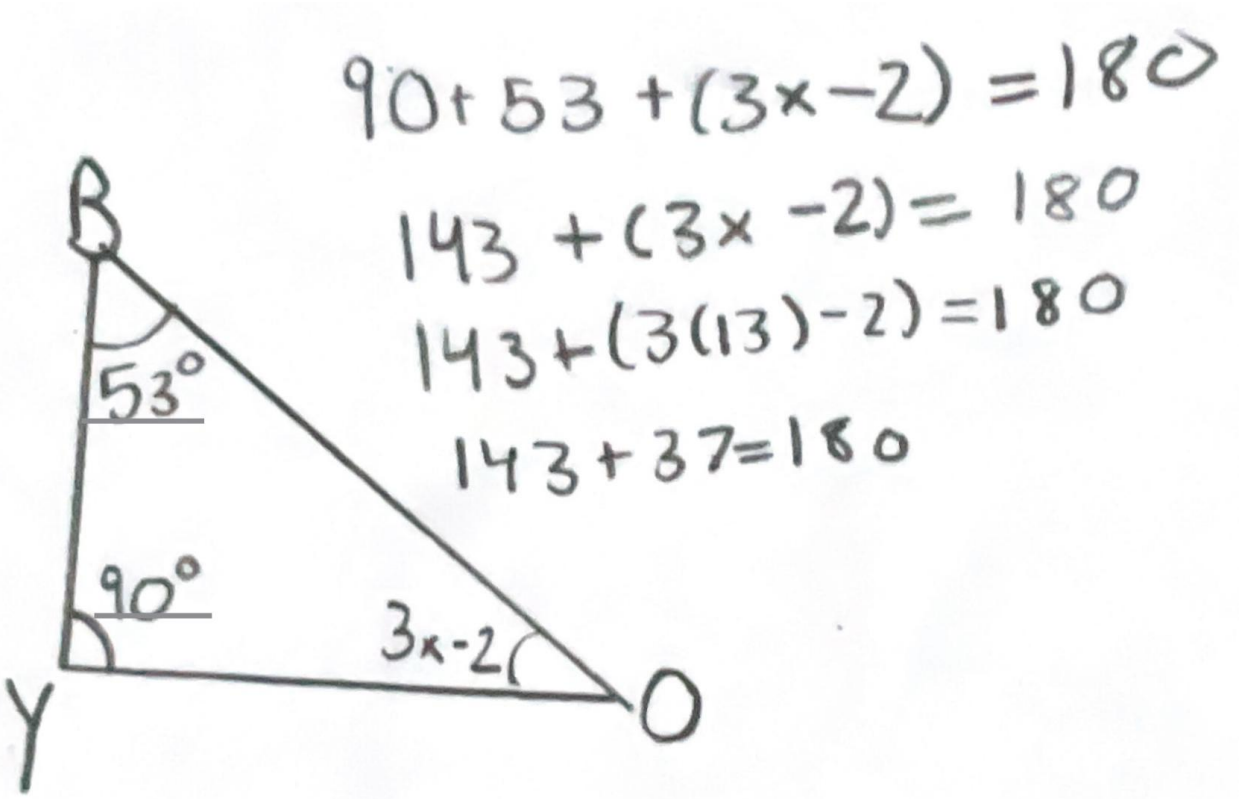
Solve for X



Triangle and Triangle Theorems:

In case you needed a bit of help figuring out the problems for my map, this might give you a bit of help.





Come take a lot at Gillian's quadrant, which is dedicated to our neighborhood friendly spiderman, who was portrayed by Tom Holland!

Designer: [Member 2's Name]

[Insert Member #2's Paragraph on Quadrant]
Discuss the highlights of this quadrant (at least 4). Highlights could include favorite sites for tourists in your neighborhood, key historical facts, etc.

Map and Instructions of Quadrant:

[Insert a screenshot of your portion of the map.]

[List of all buildings/stores/etc in your quadrant.]

[Insert a clear and detailed set of your instructions for your quadrant of the map. (Refer to GeoVille class work activity as a reference.]

Triangle and Triangle Theorems:

[Include a statement that describes this section.]

[Insert work for Pythagorean Theorem Problem]
Show all work including relevant diagrams and calculations. Make sure to discuss your process and your answer in the context of your town map.

[Insert work for Triangle Angle Sum/Exterior Angle Problem]
Show all work including relevant diagrams and calculations. Make sure to discuss your process and your answer in the context of your town map.

Let's take a look at The Maguire Quadrant!

The Maguire Quadrant

Designer: Genesis Mota-Silvestre

Welcome to The Maguire Quadrant, which is dedicated to the best and original spiderman! Two fun facts about this quadrant are that this was the first quadrant that was ever built and designed by the original architect Stan Lee and Maguire was the first ever mayor appointed by the town! If you're ever feeling hungry, make sure to hit up Parker Pasta which sells all types of Italian food, including the famous NY pizza slices. Mary Jane Mall is right across from Parker Pasta, which is where you can find all of your favorite retail stores!

Places To Visit!:

★ Stan Lee Comics
★ Columbia Photography
★ Maguire Car Wash
★ Uncle Ben's Creamery
★ Aunt May's Thrift
★ Oz Pharmacy
★ Mary Jane Mall
★ Parker Pasta
★ Great Power Great Responsibility Therapy
★ Roosevelt Train Station
★ Daily Bugle News

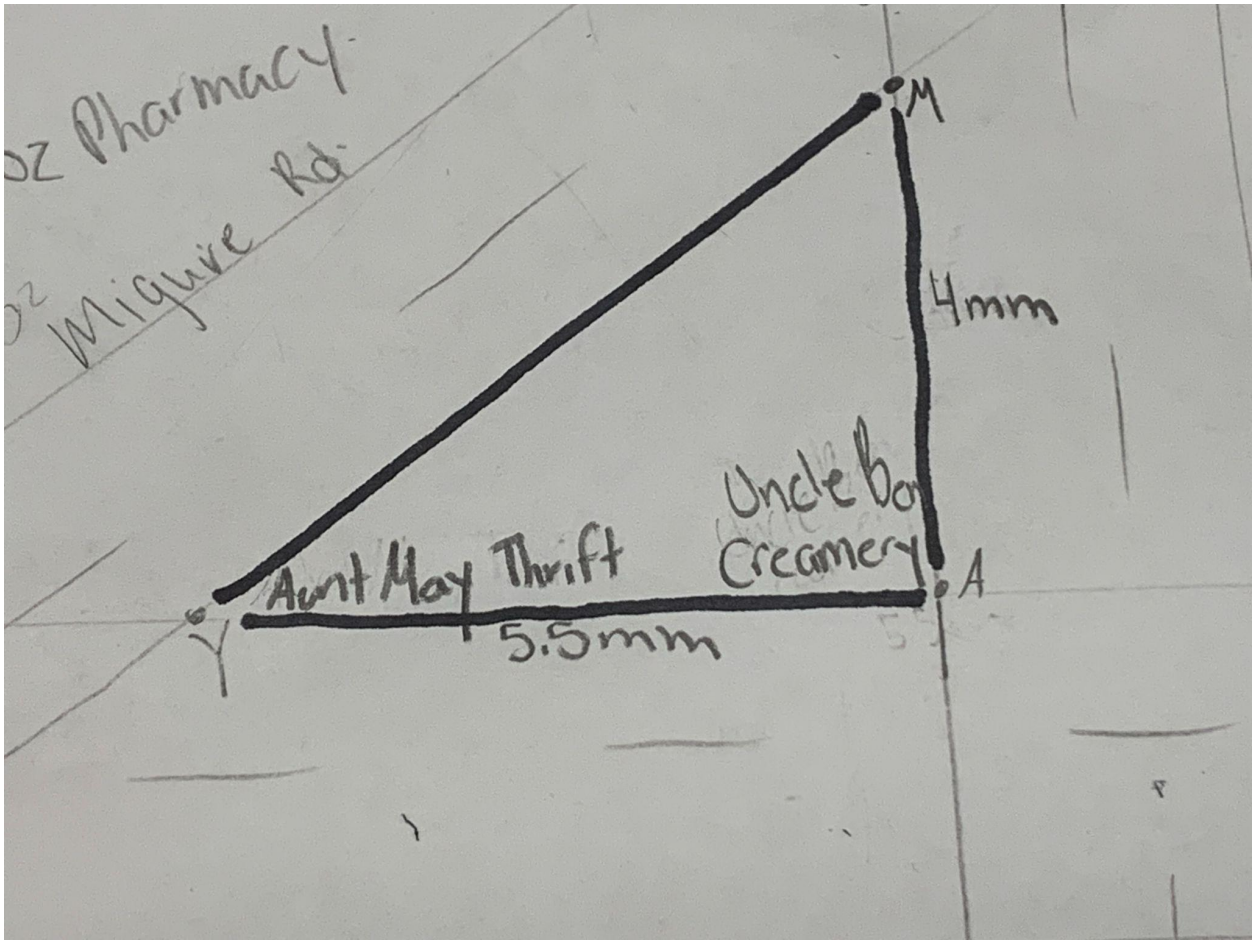
Here's a list of instructions for my quadrant, to help you navigate!

- ☐ Two main parallel lines are going south to north. The road to the west is called Dunst Road and the one to the east is called Franko Way.
- ☐ These two parallel streets are perpendicular to Coleman Highway which cuts through them at their south ends.
- ☐ There is a 4th road called Maguire Road, starting in the southwest corner heading in the northeast direction, intersecting Coleman Highway and Dunst Road's intersection in the southwest. It also intersects Franko way in the northeast area, creating 2 obtuse angles and a vertical pair where **Daily Bugle News** and **Maguire Car Wash** are found and 2 acute angles where **Stan Lee Comics** can be found

- ☐ **Mary Jane Mall** is located on the southwest side of my quadrant inside of a right angle, created by Dunst Road and Coleman Highway's intersection, which is also consecutive to **Parker Pasta.**
- ☐ Franko Way is perpendicular to Coleman Highway which creates a linear pair between **Columbia Picture Photography** and **Uncle Ben's Creamery** in the eastern part of the quadrant
- ☐ Maguire Road, Coleman Highway, and Franko Way create a right triangle where **Uncle Ben's Creamery** is found at the right angle and **Aunt May's Thrift** at the bottom left corner.
- ☐ Having Maguire Road act as a transversal, cutting through Dunst Road and Franko Way, makes **Mary Jane Mall** and **Daily Bugle News** corresponding.
- ☐ Still having Maguire Road as a transversal cutting through Dunst Road and Franco Way, makes **Great Power Great Responsibility Therapy** and **Stan Lee Comics** alternate exterior angles.
- ☐ **Aunt May's Thrift** and **Daily Bugle News** are alternate interior since Maguire Road is acting as the transversal cutting through Dunst Road and Franco Way,
- ☐ Because of Miguire's Road intersection cutting right through the middle of the right angle created by Dunst Road and Coleman Highway, **Aunt May's Thrift** and **Oz Pharmacy** are adjacent angles.
- ☐ **Roosevelt Train Station** and **Mary Jane Mall** are a vertical pair found at Dunst Road and Coleman Highway's intersection.
- ☐ **Columbia Picture Photography** is consecutive to **Maguire Car Wash** in the east part of the quadrant.

Triangle and Triangle Theorems:

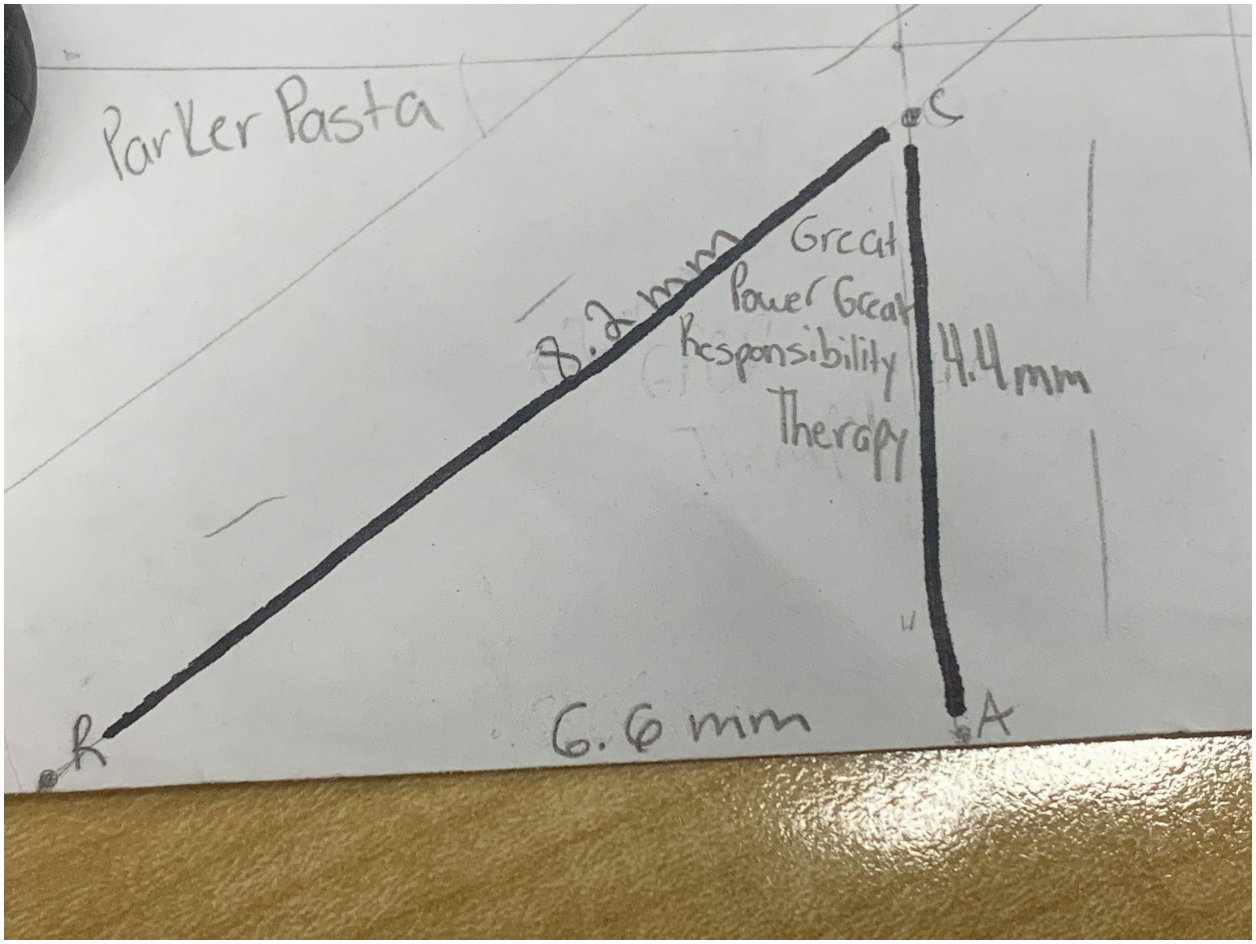
Every town and city is made up of quadrants. It's very important to know why these quadrants were constructed the way they are, for like that you'll never get lost. In this section, you'll learn about Pythagorean Theorem, Triangle Angle Inequality Theorem, and Triangle Sum Theorem to help you better understand my quadrant!



YA= 5.5 mm MA= 4 mm	Given
$a^2 + b^2 = c^2$	Pythagorean Theorem
$(MA)^2 + (YA)^2 = (YM)^2$	Substitution
$4^2 + 5.5^2 = (YM)^2$	Substitution
$16 + 30.3 = (YM)^2$	Simplify
$46.3 = (YM)^2$	Combine Like Terms
$6.8 = YM$	Square Root

We have now found the measurement of line YM which is 6.8 mm. One way to check your work is by using the Pythagorean Theorem ($a^2 + b^2 = c^2$ or $a^2 = c^2 - b^2$) once more but plugging in the measurements (remember that c represents that hypotenuse) that you are given and found. We now know the distance of the section of Miguire Road that intersects both Franko Way and Coleman Highway.

Just as important it is to find the lengths of a triangle is, it's just as important to find out what type of triangle you're dealing with. Finding out which triangle you're working with, allows you to gain insight into what its angle and length measurements are going to be like. Here, we'll be working with another triangle found in my quadrant using the Triangle Angle Inequality Theorem, to see which type of triangle it is!

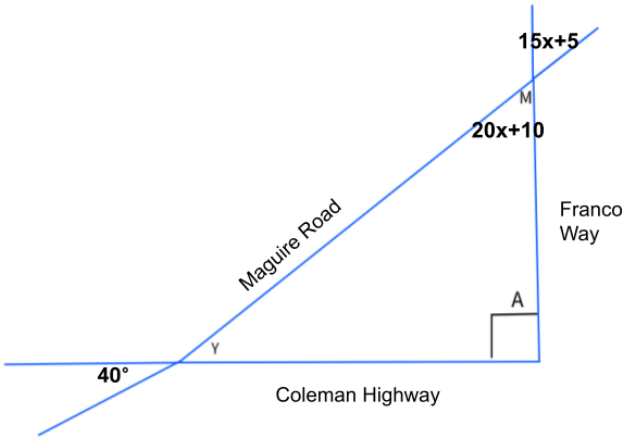


RC= 8.2mm CA= 4.4mm RA= 6.6mm	Given
$a^2+b^2>c^2$ = acute triangle $a^2+b^2<c^2$ = obtuse triangle $a^2+b^2=c^2$ = right triangle	Triangle Angle Inequality Theorem
$4.4^2+6.6^2 \square 8.2^2$	Substitution
19.36 + 43.56 □ 67.24	Simplifying
62.92 □ 67.24	Combining Like Terms

62.92 < 67.24	Obtuse Triangle

One looks at this triangle, and one infers that it's a right triangle and treats it as such. But, now having done the Triangle Angle Inequality Theorem, we now know that this triangle is an obtuse triangle. Imagine if Stan Lee, our town architecture, treated this obtuse triangle as a right triangle while he was constructing it! There's only one way we can certainly know when a triangle is a right triangle and that is when it has the box in the corner where the two straight lines intersect each other.

Find the missing measurements



∠A=90 degrees **∠M=20x+10**	Given
Y=40 degrees	Definition of vertical angles
∠A+∠M+∠Y=180 degrees	Triangle Sum Theorem
90+40+20x+10=180	Substitution
140+20x=180	Combine Like Terms
20x=40	Subtraction Property of Equality
x=2	Division Property of Equality
∠M= 20x+10	Given Measurement of **∠M**
∠M= 20(2)+10	Substitution
∠M= 50 degrees	Simplify
15x+5=**∠M**	Definition of Vertical Angle
15x+5=50	Substitution
15x=45	Subtraction Property of Equality
x=3	Division Property of Equality

We have now found the missing measurements of this triangle! Remember to use and practice what you learned today to help you better understand the world around us and the world of Geometry :)

Conclusion:

We had difficulty completing our work and distributing it evenly among our group members at the start of our project. However, as we discussed our thoughts and ideas, we realized how important communication is when working in a group. We were able to complete our project and learn from each other because of our communication. We asked each other for help if we didn't understand a certain aspect of the project, such as the math or creativity, and as a result, we were able to grow both academically and as partners.

We continued to practice using communication after learning how important it is when working as a group. We were able to learn how to manage our time because of the communication, and we did an excellent job. Knowing who was going to do what and when allowed us to get ahead of our project without worrying about not being able to finish it. We were also able to correct our mistakes without being delayed because we knew how to manage our time. Nothing beats competing in a long race with rain and a rocky path and knowing that none of these things will prevent you from crossing the finish line first.