

# ROG

---

## **“Proud” Rulers and Designers:**

Ruler of Roleplay District: Tai Yu Lin

Ruler of FPS District: Ryan Suprijanto

Ruler of Sandbox District: Evan Hurdle-Yoder

Ruler of Reality District: Adil Kabir

## **Introduction:**

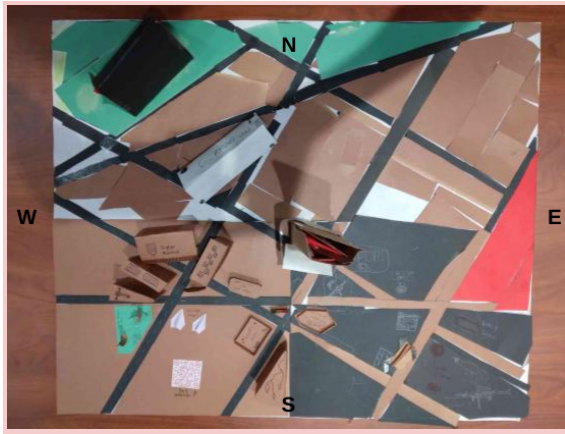
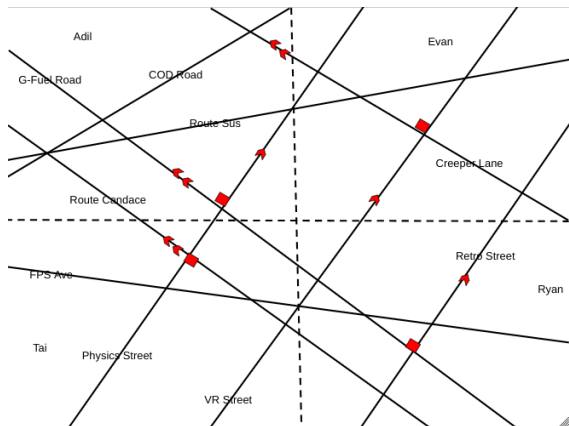
Welcome To ROG, Republic of Gamers! Unlock your true gamer potential in any game. We have four districts full of people with unrivaled gaming skills. We have everything, Sandbox, Reality, FPS, and Roleplay. A land of opportunities and freedom. Free from the labor-intensive world. Free from the shackles placed on you by society. You can live your life with pleasure.

So, how does our society function without human labor? This is a question many people will ask. It is true that our town will use absolutely no human labor. But, you might not have realized the potential of games. Our farms and all of our facilities are operated by robots. These robots are controlled by people playing the game related to that facility. The perk of a society run through games is that our facilities are never resting. We always end up with surplus amounts of delicious gourmet food due to the care and attention our gamers provide in the Farming simulator. Our banks and marketplaces are all online and managed by a supercomputer.

What about education? We understand that all parents want their children to have the best quality education possible. Our Robloxian High School uses the most state-of-the-art teaching methods to educate your child in every field of gaming. We ensure that your child is able to do basic math such as geometry, trigonometry, and calculus so they can ace that game of Bedwars. Our courses are taught only by the finest of teachers, selected through the rigorous Fornite battle Royale process.

How is justice enforced? The crime rate in our town has not only decreased by 0.001% since the last year, but it has also completely become irrelevant. Our military and police departments are a force to be reckoned with. Primarily made up of professional COD, Counter-Strike, Valorant, and Doom Eternal gamers. These combat-hardened law agents train on a daily at our fps range and detective courses offered at Robloxian High School. Most people are too scared to even commit a crime.

Our technologies and facilities stated above, allows us to give our residents the most of every second they have and to dedicate them to the arts of gaming.



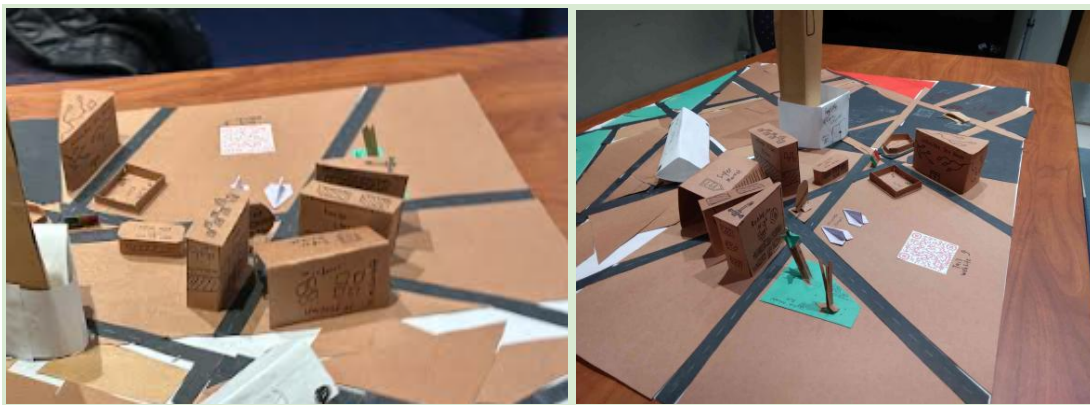
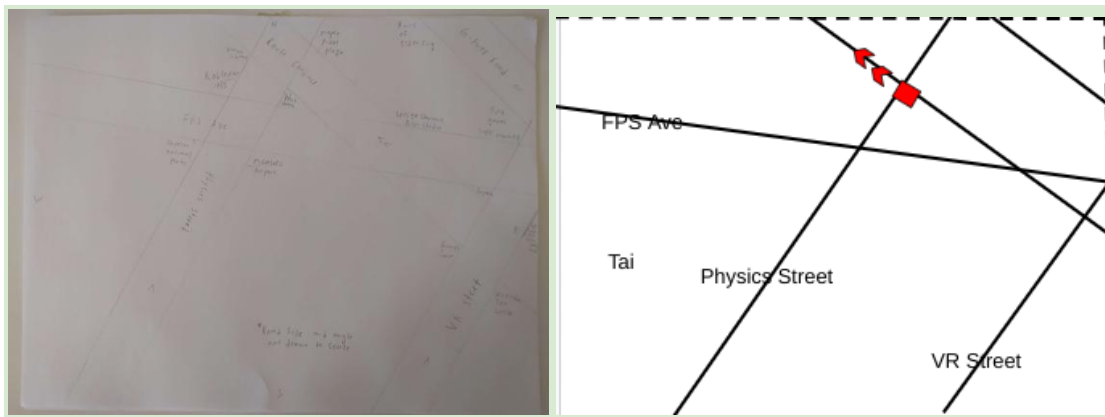
## ROLEPLAY DISTRICT:

Tai (RULER of the Roleplay District) Presents:

Here in the roleplay district, we offer plenty. Our top-rated high-end restaurant *Impasta* is a must-visit tourist destination. Since its opening in 2018, the restaurant has always had a reputation among the locals for offering the most delicious dishes and the most wonderful environment. After your meal, you can always head over to *Maple Pixel Plaza*, opened in 2003, to shop for the latest, most powerful graphics cards and CPU. But, if you are not interested in them, the Plaza also includes a mountain of fashion shops from the most prominent brands such as Nike and Louis Vuitton, so don't be scared to roleplay as anybody you want. If you truly dislike shopping, we recommend going to the *Ruins of Elden Ring*, one of the few wonders of the

past. The ancient ruins are believed to be built around a millennium ago by Numen. The Numen who rebelled against the Greater Will, a deity, was punished by death. Now, all that is left to us is the ruins of a once-flourishing village. To learn more about the past, you can visit *Skyrim National Park*, a well-preserved forest. Deep within this mysterious piece of forest is a castle, holding tales of the past. Legends say that a hero from this castle set out to kill the world-eating dragon, Alduin. Here you will have a journey just like the hero's, you will travel this forest in a suit of armor and slay the monstrous dragon. Once you're done, a drink at the *Serenitea Tea House* would be the most refreshing experience you had all day long. The tea house is quite new, opened in 2020, yet its tea is of the highest quality. They offer a hundred different varieties of tea and each one will take you to an imaginary world of your own. But, I would say that their desserts are to die for. You can get delicious snacks such as Berry Mizu Manjuu, Mint jelly, and Moon pie. Now that your tummy is full and your mind satisfied, we recommend you head to *Microsoft Airport* and fly back home, to a society where the grass is real and people actually go outside. But, first a little about Microsoft Airport is that it was founded in 1982, way before most of our destinations were opened for business. But it acted as a reminder that in the near future, there would be a very advanced town surrounding it.

## Map and Instructions of Quadrant:





### Locations:

- Honkai Library
- Robloxian High School
- Skyrim National Parks
- Maple Pixel Plaza
- PokeBank
- Microsoft Airport
- Ruins of Elden Ring
- Let's Go Starwars Film Studio
- Epic Games Supermarket
- Impasta
- GIANTS farm
- SCP Site-116 Military Base
- Serenitea Tea House

### Map Instructions:

1. Two parallel lines run south to north. The road going from southwest to northeast is Physics street. Under that, going from southeast to northeast is VR street.
2. Route Candace is a Perpendicular line to Physics and VR street, which runs from northwest to southeast.
3. G-fuel road is a parallel line to Route Candace, which runs northwest from the northeast.
4. Entering from the Northwest and moving southeast and off into the northeast of town is FPS Ave. It forms a transversal with Route Candace. It also forms intersecting lines with Physics street. FPS Ave, Route Candace, and Physics Street intersect to form a right triangle.
5. In this right triangle stated above, PokeBank is located on the right angle.
6. Maple Pixel Plaza is a linear pair to PokeBank.



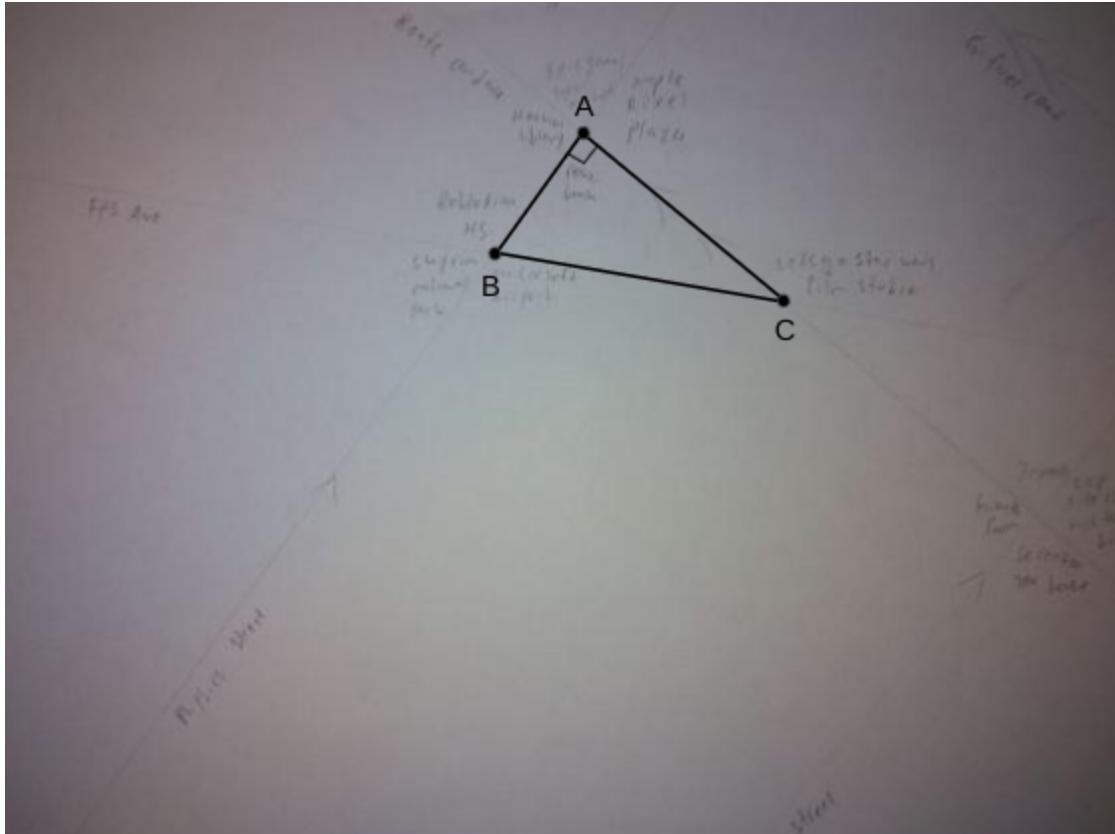
7. Epic Games Supermarket is located at a vertical angle from PokeBank.
8. Honkai Library is an adjacent angle of Epic Games Supermarket and is located west of PokeBank.
9. If Route Candace is a transversal intersecting Physics Street and VR Street. Impasta is an alternate interior with PokeBank.
10. Serenitea Tea House is an alternate exterior angle with Epic Games Supermarket.
11. GIANTS Farm is a consecutive angle to PokeBank.
12. SCP site-116 Military Base is a corresponding angle to Maple Pixel Plaza.
13. The intersection formed by FPS Ave and Physics Street is home to Skyrim National Park located at the west acute angle.
14. Up north is Robloxian High School, which forms a linear pair with Skyrim National Park and is located at an obtuse angle.
15. Microsoft Airport is at a vertical angle to Robloxian high school.
16. If FPS Ave is a transversal intersecting through Physics Street and Route Candace, Let's go Starwars Film Studio is an alternate exterior angle to Skyrim National Park.

## **Triangle Theorems:**

In this section, you will see how the RPG district is built of multiple triangles. After all, triangles are the strongest shapes.

## **Pythagorean Theorem:**

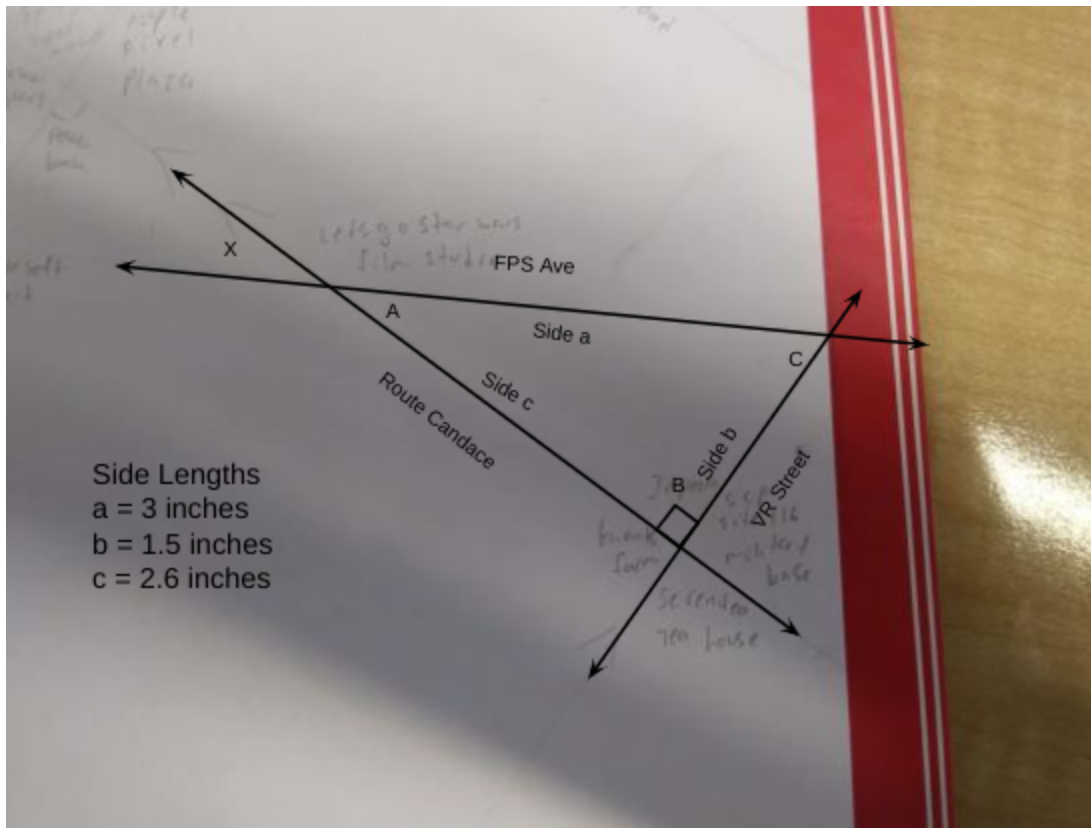
This is a right triangle formed by the intersection of Route Candace, FPS Ave, and Physics Street.



Statements	Explanation
$AB = 1.2, AC = 2.1$	Given
$a^2 + b^2 = c^2$	Pythagorean Theorem
$(AB)^2 + (AC)^2 = (BC)^2$	Substitution Property
$(1.2)^2 + (2.1)^2 = (BC)^2$	Substitution Property
$1.44 + 4.41 = (BC)^2$	Simplify
$5.85 = (BC)^2$	Combining Like Terms
$2.4 = BC$	Square Root Property of Equality

**Triangle Angle Sum Theorem:**

This is a right triangle formed by the intersection of FPS Ave, Route Candace, and VR Street. If Angle B is 90 degrees and we know all the side measurements, find x.



Statements	Explanation
$a = 3, b = 1.5, c = 2.6, B = 90^\circ$	Given
$c^2 = a^2 + b^2 - 2ab \cos(C)$	Law of Cosines
$2.6^2 = 3^2 + 1.5^2 - 2(3)(1.5) \cos(C)$	Substitution Property
$6.76 = 9 + 2.25 - 9 \cos(C)$	Simplifying
$6.76 = 11.25 - 9 \cos(C)$	Combining Like Terms
$-4.49 = -9 \cos(C)$	Subtraction Property Of Equality
$0.5 = \cos(C)$	Division Property Of Equality
$C = 60^\circ$	Inverse Cosine

$C + B + A = 180$	Triangle Angle Sum Theorem
$60^\circ + 90^\circ + A = 180$	Substitution Property
$A = 30^\circ$	Subtraction property of Equality
$A = x$	Vertical Angles
$x = 30^\circ$	Substitution Property

---

If you walk east far enough, you might find yourself in a whole new distinctively different district of town. The FPS district.

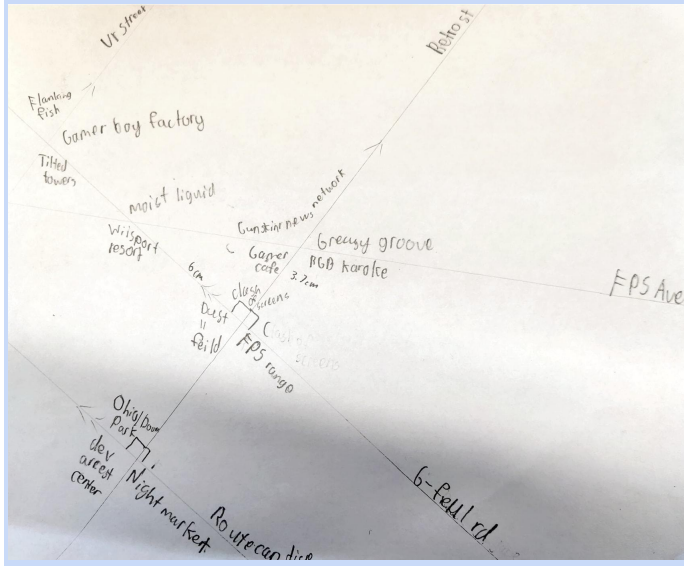
## **FPS DISTRICT:**

Designer: Ryan Suprijanto

Hello and welcome to Shooters field. This is where all the gamers who love shooters(not shooting) goes. It has everything to live the life of a gamer. Right when you come in you will probably hear electronic gun sounds right when you enter. The living quaters for these gamers is an apartment building called Tilted Towers. Named after the famous location in Fortnite with tall apartments to small houses. When you live in an apartment you probably go for take out everyday; so we have a deal with every food delivering app to give us 20\$ off of every purchase. The main money maker in Shooters Field is Greasy Grove. Which gives these gamers a healthy and active mind to take a gun and shoot. For these gamers it's also important for them to go outside, because of that we have made attractions, like Gamer Café, RGB karaoke, Ohio Park, the Night Market, and the one and only Wii Sport Resort. It also has an in grown gaming league where gamers through out ROG city play and host tournaments. If you vist I hope you have the bestest time of your life there, because who knows you might want to stay there forever.

## **Map and Instructions of Quadrant:**





### List of the buildings:

- Flanking Fish
- Tilted Towers
- Willsport Resort
- Moist League
- Gamer Factory
- Gun Skin New Network
- Greasy Grove
- RGB karaoke
- Gamer Cafe
- Clash Of screens
- FPS range
- Dust II field
- Dev Arrest center
- Night Market

### Map Instructions:

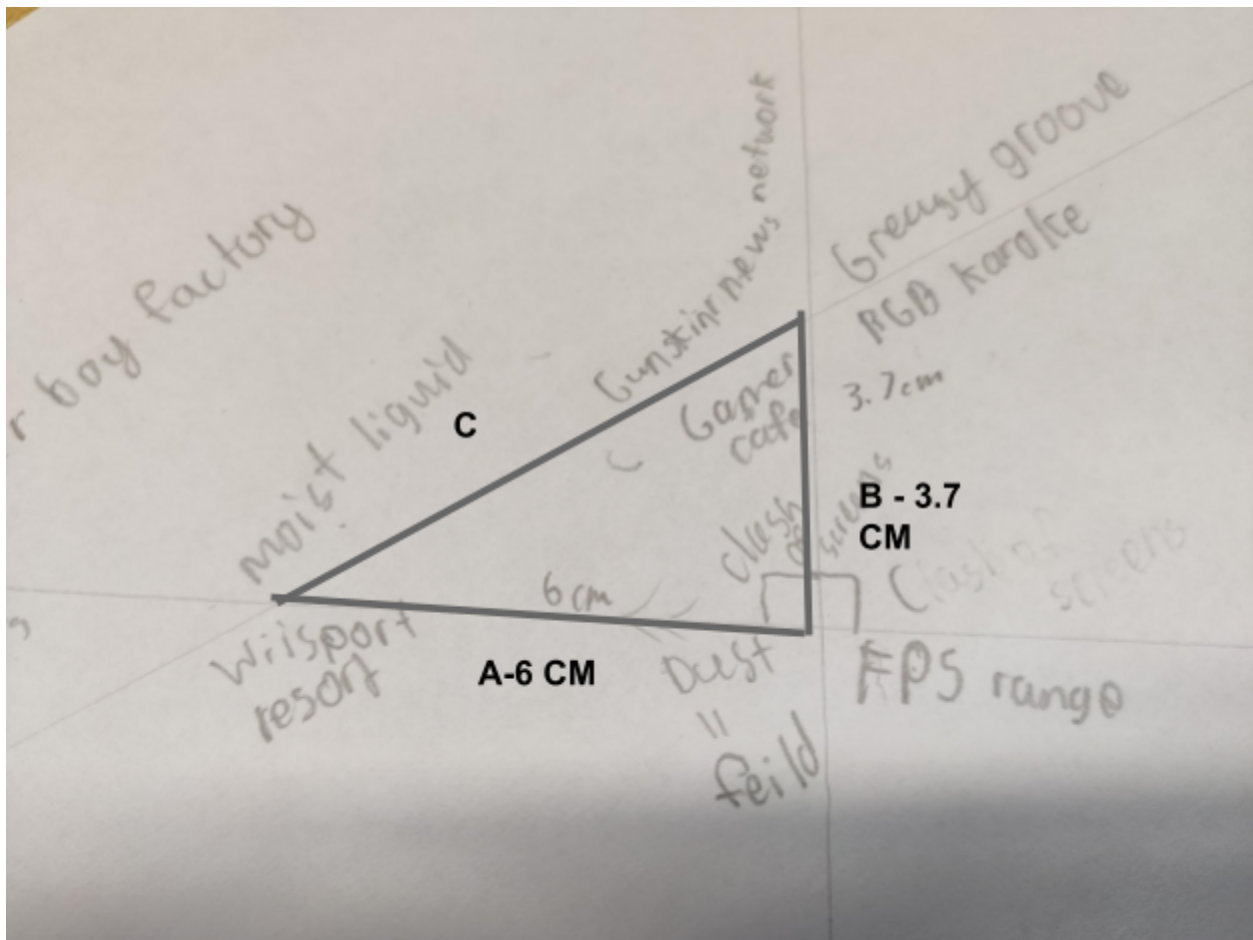
1. Mark the top as **North**, mark the bottom as **South**, mark the left side as **West**, and mark the right as **East**.
2. Make a line from the top of the West to the bottom of the south and call it **G-fuel Road**.
3. **Route Candice** is towards South and parallel to **G-fuel Road**.

4. Make another road That is 30 degrees that starts at the south and ends North and make perpendicular lines with route Candice and g - fuel road. Call it **Retro street**.
5. Make another road that starts west to east and intersects and makes acute angles and a transversal with g-fuel road and Retro street on the Northwest side of the map. That is called **FPS Ave**. On the top of the West, there is a street called **VR street**, which is parallel to retro St and ends at the top of the North.
6. In the 90-degree portion of the right triangle on Retro st there is a building **called clash of screens**.
7. Vertical to clash of screens near the South there is **FPS range**.
8. **Dust II field** is on G-Fuel rd and a linear pair to FPS range in the west.
9. If Retro St made a transversal with FPS Ave, G-fuel Rd, and Route Candice then **Ohio Park** has a consecutive angle with the Dust II field.
10. Clash of screens has an alternate exterior with the **Night Market**.
11. If Retro St made a transversal with FPS Ave, G-fuel Rd, and Route Candice then Clash of screens has a consecutive angle with a **gamer cafe**.
12. **Dev arrest center** is corresponding to the Dust II field and all are on Retro st.
13. Dust II field has an alternate interior **RGB karaoke** that is obtuse.
14. RGB karaoke is vertical to **Gun Skin News Network**.
15. **Greasy Groove** is an adjacent angle to Gun Skin News Network.
16. If Gfuel Rd made a transversal with VR street and Retro St then **Moist league** is a consecutive angle with Gun Skin News Network.
17. If Gfuel Rd made a transversal with VR street and Retro St then **Gameboy Factor** is a consecutive angle to Moist League.
18. Moist league is vertical to **Wii sports resort** and was at the intersection point of FPS ave and G-Fuel rd.
19. Towards the north side **Flanking fish** has a linear pair with GAMER Factory

20. Towards the south of the **GAMER factory** Titled Towers are linear pairs at the intersecting of VR street and G-Fuel Rd.

## Triangle and Triangle Theorems:

### Pythagorean Theorem:

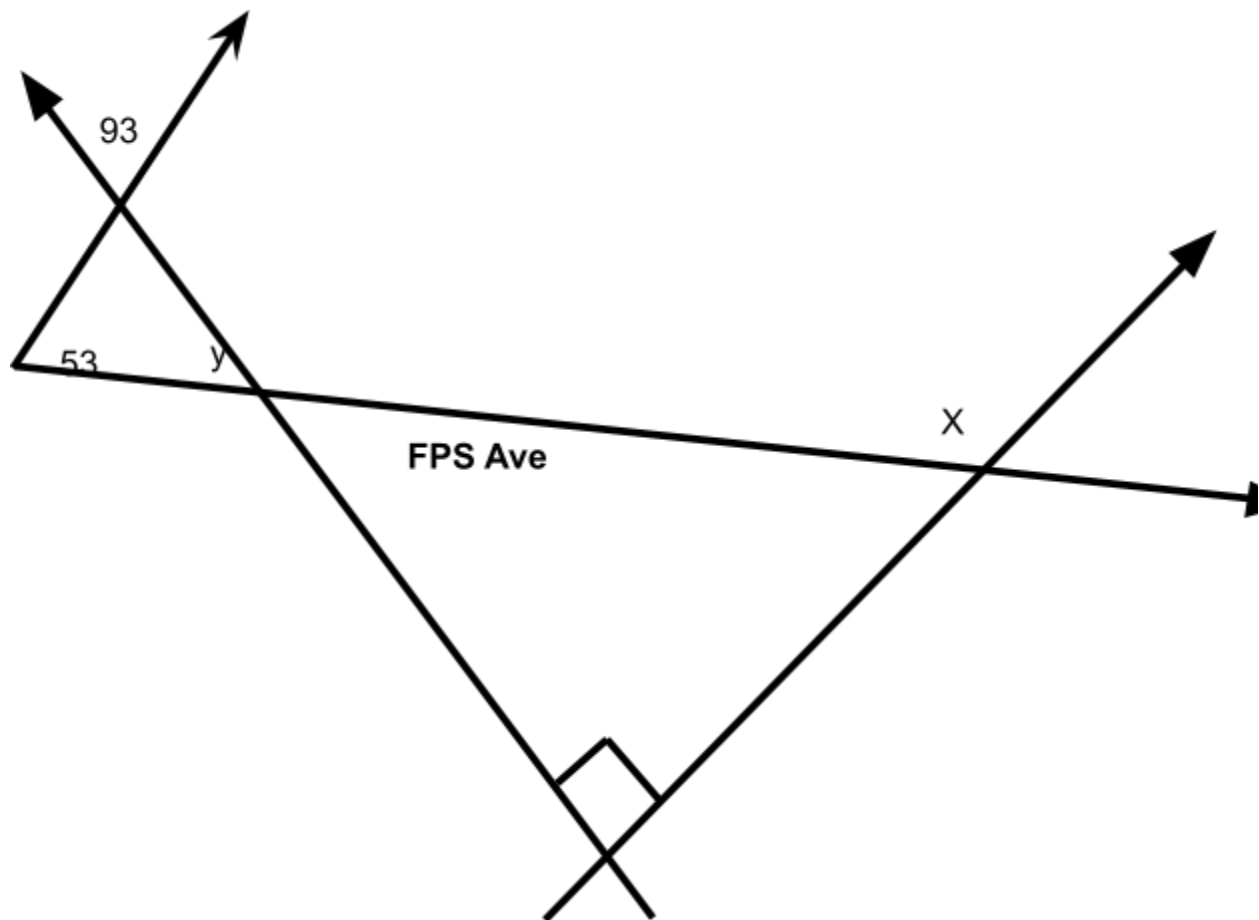


Statement	Explanations
A = 6 CM, B = 3.7 CM	Given
$a^2 + b^2 = c^2$	Pythagram theorem
$6^2 + 3.7^2 = c^2$	Substitute

$36 + 13.69 = c^2$	Simplify
$49.69 = c^2$	Combining like terms
$7.0491 = c$	Square root

### Exterior Angle & Triangle Angle Sum Theorem:

**Problem:** Flanking Fish has a corner that is angled at 93 degrees. If there was an empty plot that measures at 53 degrees in the triangle, what is X?



#### Triangle problem

$$93 + 53 + y = 180$$

$$146 + y = 180$$

$$y = 34$$



$$34 + 90 = x$$

$$124 = x$$

Flanking Fish was at 93 degrees and it had a vertical angle with the triangle shared with Y. We know  $93 + 53 + y = 180$  So we add the two known values and subtract it with 180.  $180 - 146 = 34$  With 34 as the remaining number we know  $34 = y$ . Y has a vertical angle with the triangle that X uses. So  $y + 90 = x$  We know this because of exterior angle theorem. Which states that  $X + Y$  is the sum of the exterior of the angle. (The outside of the acute angle)

Statement	Explanation
$A = 93, B = 53$	given
$a + b + c = 180$	Angle sum theorem
$93 + 53 + y = 180$	Substitute
$146 + y = 180$	Combining like terms
$y = 34$	Subtraction property of equality
$y + 90 = x$	Vertical angle & exterior angle theorem
$34 + 90 = x$	Substitution
$124 = x$	Combining like terms

---

Far in the Northeast quadrant lies the land of the Sandbox District.

## **SANDBOX DISTRICT:**

Designer: Evan Hurdle-Yoder

The first place you'd want to visit is Creepers Fireworks and Explosives because of the many different variants and choices of fireworks to set off for celebrations. The next place of interest is Diamond Ore and More Jeweler where you can find many fine pieces of jewelry for people you love. In the Minecraft Quadrant, there is a lot of history behind the landscaping over the years that was created by Grassy

**Landscaping.** One of the best places to visit is the Axolotl Aquarium because of the big areas with fish tanks, and the many hands on experiences.

**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:**

[proposal map.pdf](#)

1. Creeper's Fireworks and Explosives
2. Blaze Lighting CO.
3. Spider Eye Brewery
4. Witches Pizza Hut
5. Desert Temples carpet store
6. Axolotl Aquarium
7. Steve's Hardware
8. Alex Mining CO.
9. Withered Smithing
10. Diamond Ore and More Jeweler
11. Grassy Landscaping

1.

**Physics Street runs from the West to the North of my quadrant.**

**VR Street goes from the South to the North of my quadrant.**

**Creeper Lane goes from West to South East in my quadrant.**

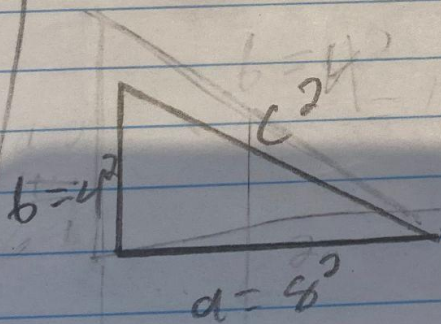
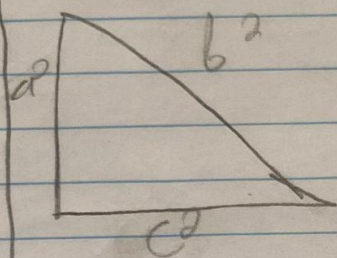
**Route Sus goes from the West to the East / North East of my quadrant.**

**Retro Street goes from the South of my quadrant to the East.**

### **Triangle and Triangle Theorems:**

**This is the Pythagorean Theorem and the Angle Sum Theorem.**

Pythagorean Theorem T-chart + proof Task 2A



$$a^2 + b^2 = c^2$$

$$4^2 + 8^2 = c^2$$

$$16 + 64 = c^2$$

$$80 = c^2$$

$$c = \sqrt{80}$$

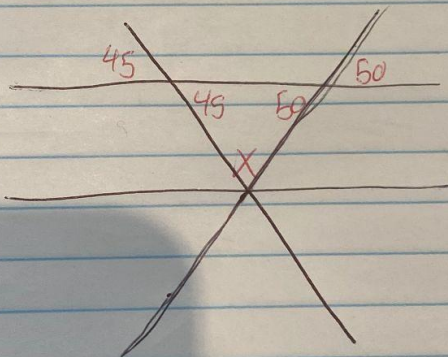
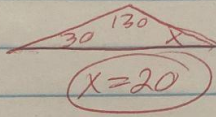
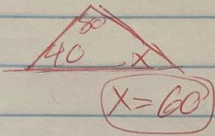
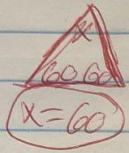


**Show all work including relevant diagrams and calculations. Make sure to discuss your process and your answer in the context of your town map.**

## Task 26

Angle Sum Theorem

In a  $\Delta$ ,  $\angle a + \angle b + \angle c = 180^\circ$



$$\begin{array}{r} 45 + 50 = \\ 140 \\ - 45 \\ \hline 85 \\ \hline x = 85^\circ \end{array}$$

Solve for  $x$   
where  
 $\angle a = 50$  and  
 $\angle b = 45$

Show all work including relevant diagrams and calculations. Make sure to discuss your process and your answer in the context of your town map.

---

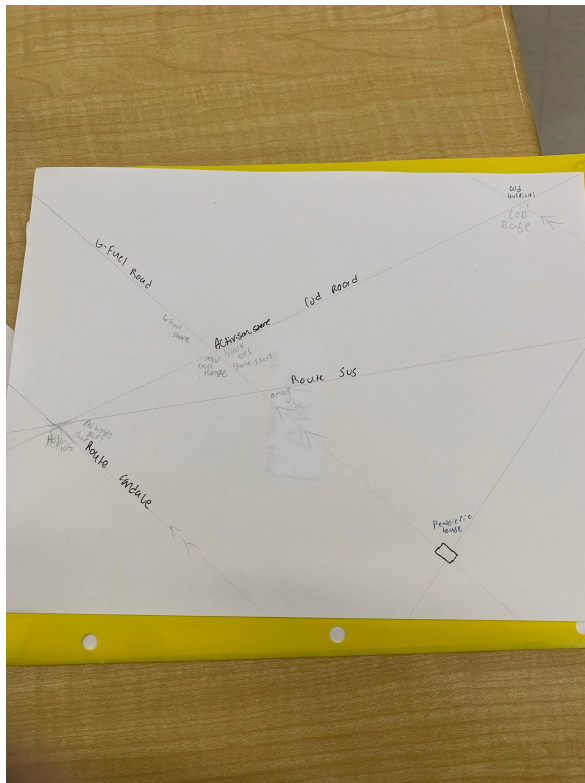
Reality District is to the West of us (Sandbox District) <3

## REALITY DISTRICT: Reality District

Designer: Adil Kabir

Welcome to Reality District. Home of the greatest. Everything from Youtubers, to a lab, down to the local candy man...Here in this district, lives Pewdiepie, the greatest youtuber of all time. Our HoyoLab, home to the greatest potions and whacky liquids. Our "top of the line" roads will ensure you will have a smooth ride. Our local candyman is totally safe handing out legitimate candy. The kids love him!!

### Map and Instructions of Quadrant:



- VR Park

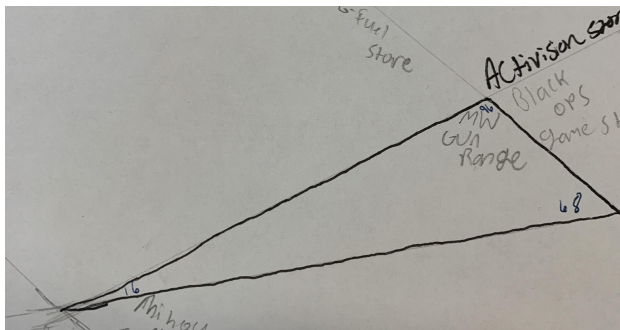
- PewDiePie's House
- Hoyolab
- The Neighborhood Van
- Very Real Field
- Ohio Pitch (Rival company with *Very Real Field*)

G-fuel road is parallel to creeper Lane

Physics street is perpendicular to G-fuel road

- Route Sus is the transversal for G-fuel road and Route Candace
- COD Road is the transversal for G-fuel road and Route Candace
- 
- G-fuel road and Cod road are a linear pair
- G-fuel road and route sus are a linear pair
- Route SUS and Route candace is a linear pair
- Route Sus and Physics street is a linear pair
- 
- The MW gun range and Activision store are vertical angles.
- MW gun range and G-fuel store are vertical angles
- COD Base and COD Hospital are vertical angles
- 
- Among Us Inc. and Mihoyo gift shop are corresponding angles
- 
- PewDiePie's house is located in the southeast part of G-fuel road on a 90 degree angle.

## Triangle and Triangle Theorems:

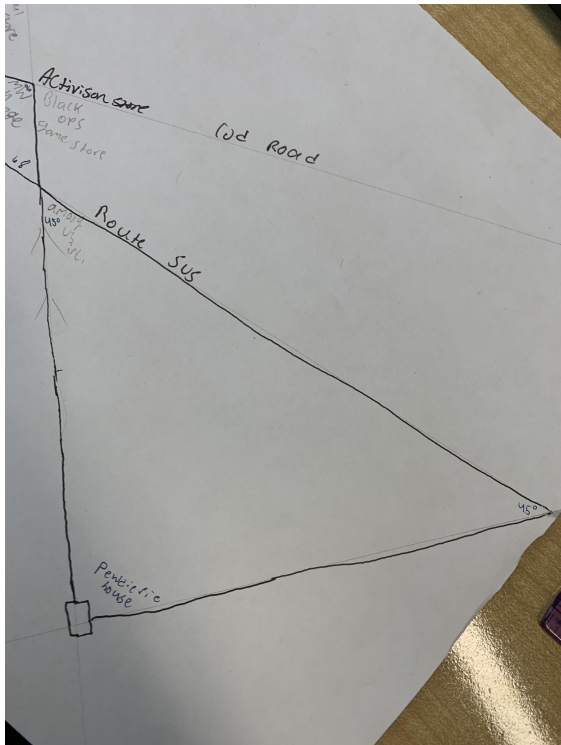


Find the missing angle in the triangle.



$a = 16$   
 $b = 68$   
 $a + b + c = 180$

Given	$a = 16$ $b = 68$
Substitution	$16 + 68 + c = 180$
Simplify	$84 + c = 180$
Subtraction property of equality	$c = 96$



Find the missing angle measurement.  
 Among us Inc (a) is at a 45 degree angle.  
 Pewdiepie house (b) is on a 90 degree angle.

Given	$a = 45$ $b = 90$
Substitution	$45 + 90 + c = 180$

Simplify	$135+c=180$
Subtraction property of equality	$c=45$

---

That's it! We hope your journey through ROG has been a memorable one. It's been our honor to guide you through a section of this game of life. Farewell, travelers.

## **Conclusion:**

### **What We Learned?**

As a group, we learned that being unique is more important than being neat. When we started, we wanted to be neat because it might help us stand out. But, over time we realized just how slow the process was. We even had to draw out the map three times to get it right. But in the end, we decided to dedicate ourselves to our own quadrants. To emphasize our personalities in each piece. To make each quadrant unique but also the same. We found out that it was much faster and we argued less this way.

### **What Were We Good At?**

Also as a group, we were really good at compromises. While many other teams might have argued with each other, we were able to make agreements through compromises. Things like the name, theme, and map were all done through a civilized voting system and compromised our ideas. This allowed us to be more passionate about our map since we all agreed on what to do. It also helped us to talk about game plans with the time we saved from not arguing with each other, which we thought was very useful.