

ABELLA'S

French bakery

PARTY



By: Isobel Corben



Abella is going to throw her birthday party at her family's bakery (which is next to her house) to celebrate her 14th birthday on Saturday. She is going to invite some of her closet customers and ^{her} friends from school.

Her Friends

- Kim O'hara
- Riley O'hara
- Tyler Smith

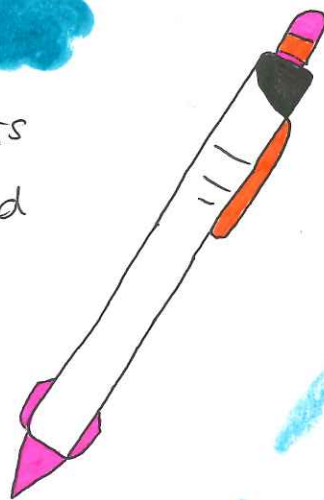
Her Customers

- Bem Nkosi
- Jules Abadies
- Liam Packman

Abella drew a map out of all her friends' houses and all the possible and quickest roads to get to each of their houses. Each person's initials represents where they live on the map.

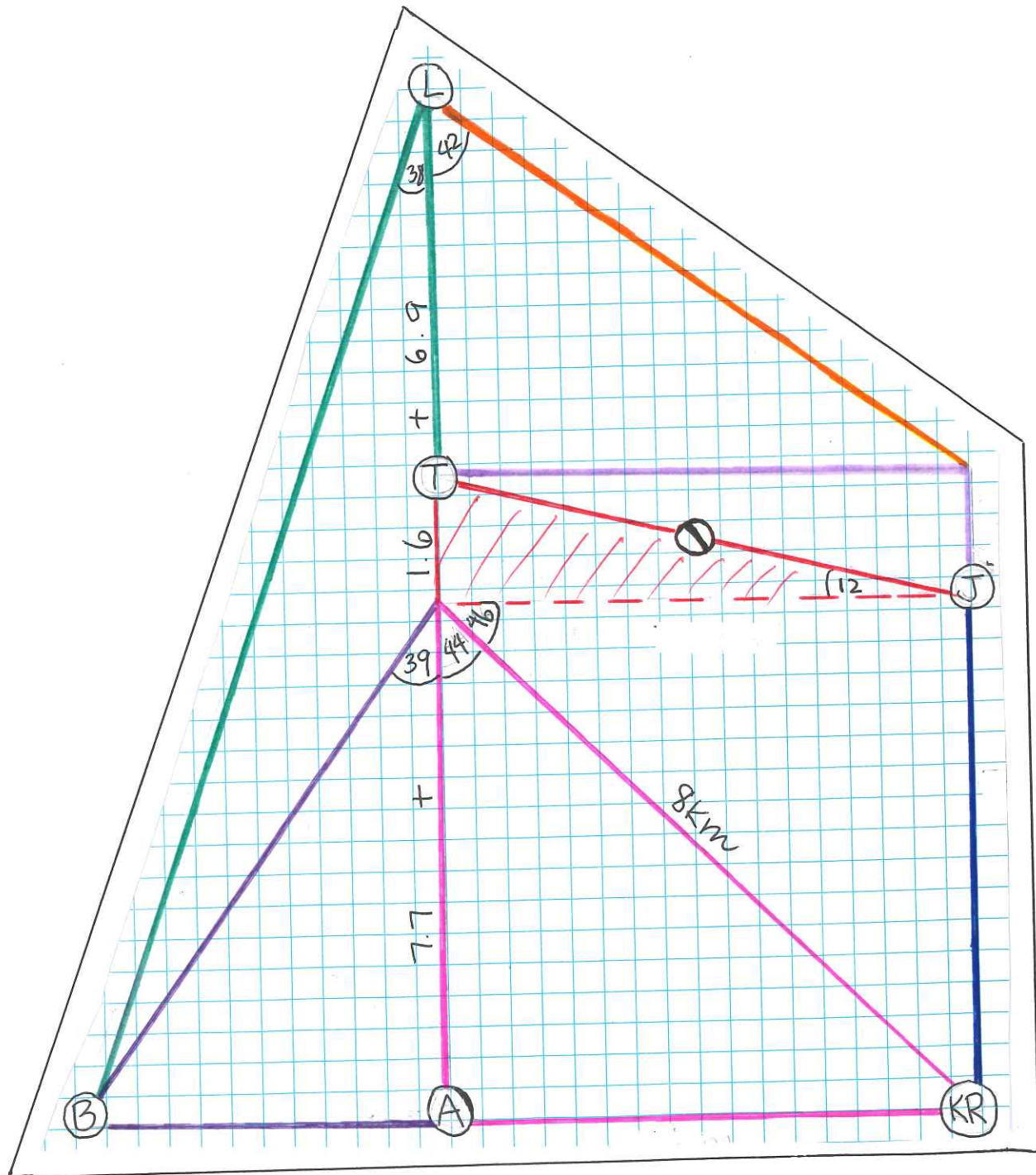


She knew that her parents were going on a trip on the weekend and she is thinking of using her brother's car to get everyone to her house.

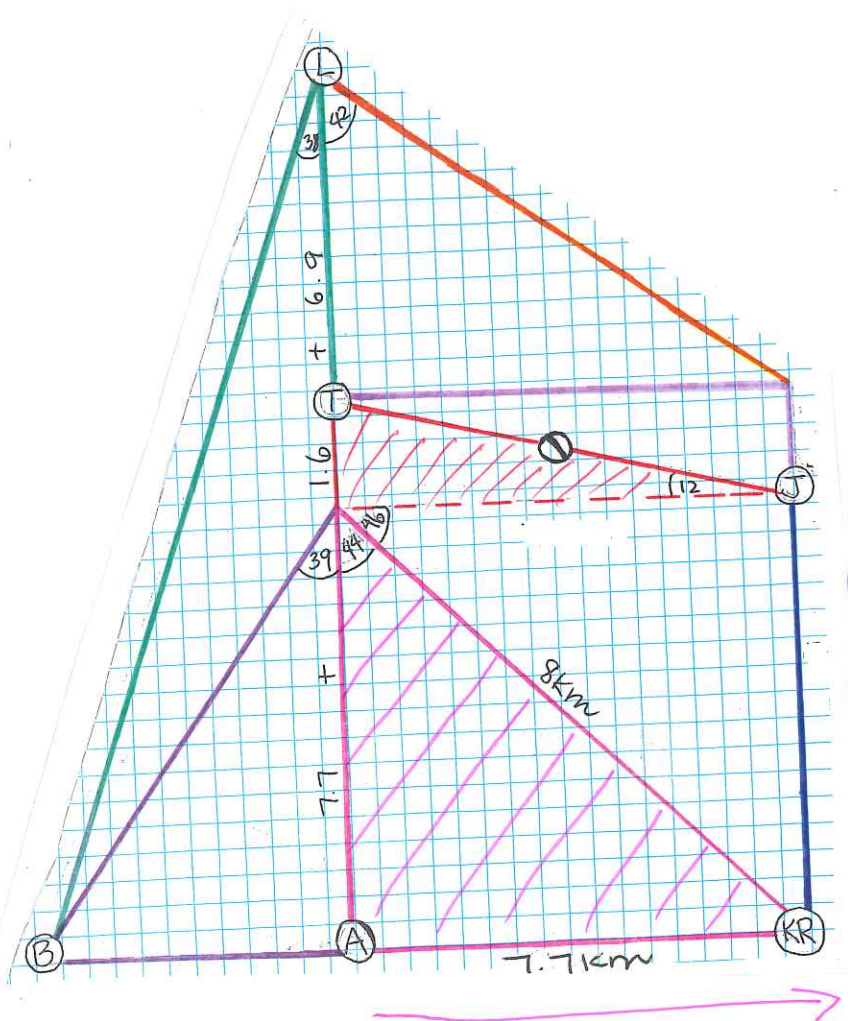


She could only see some measurements on her map that she drew, however Abella remembers learning about trigonometry in maths class, she decided to calculate the distances between each house by using trigonometry!

Here is the map that Abella drew:



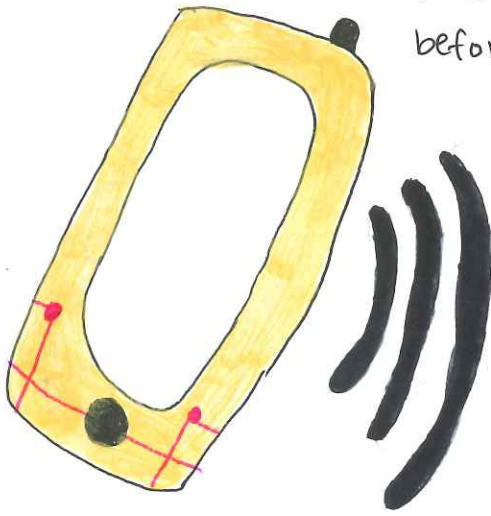
Abella started to calculate the distance between her place and the twins house. She knew that they lived the closest to her house.



$$A \rightarrow KR = \tan(44) \times 8 = 7.7 \text{ km}$$

When Abella finished calculating, she receives a text message from her customer, Jules. She says that one of her friends is staying at her house for a sleepover, which will end at 11:00. She decided to pick up Jules after the twins.

After she had finished calculating, she got a call from one of her closest customers, Bem. She said that she would like to get picked up any time before 12:15, she had agreed to pick up Bem last.

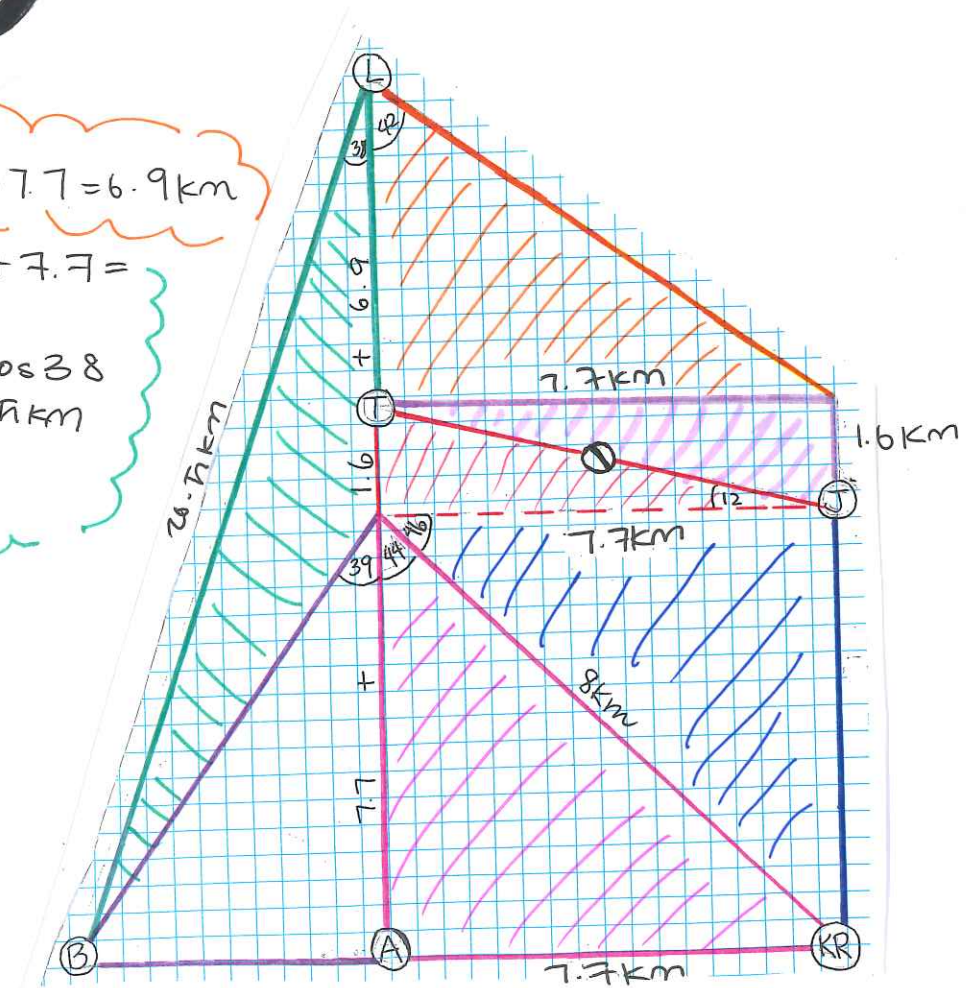


Abella decided to text Liam, telling him that she and her brother would pick him up around 11:50.

$$T \rightarrow L = \tan(42) \times 7.7 = 6.9 \text{ km}$$

$$L \rightarrow B = 6.9 + 1.6 + 7.7 = 16.2 \text{ km}$$

$$= 16.2 \text{ km} \div \cos 38 = 20.7 \text{ km}$$



Since Abella was picking up Bem last, she would have to drive back to her house and then she would be able to have the birthday party! She starts to calculate the distance between her house and Bem's.

The total distance Abella and her brother will travel is:

$$= 7.7\text{km} + 7.7\text{km} + 9.3\text{km} + 6.9\text{km} + 20.5\text{km} + 6.2\text{km} \\ = \underline{58.3\text{km}}$$

After Abella finished calculating the distances between the houses, she finally began to make some things for her party! Abella decided to make a huge chocolate cake. She also made some party decorations as well.



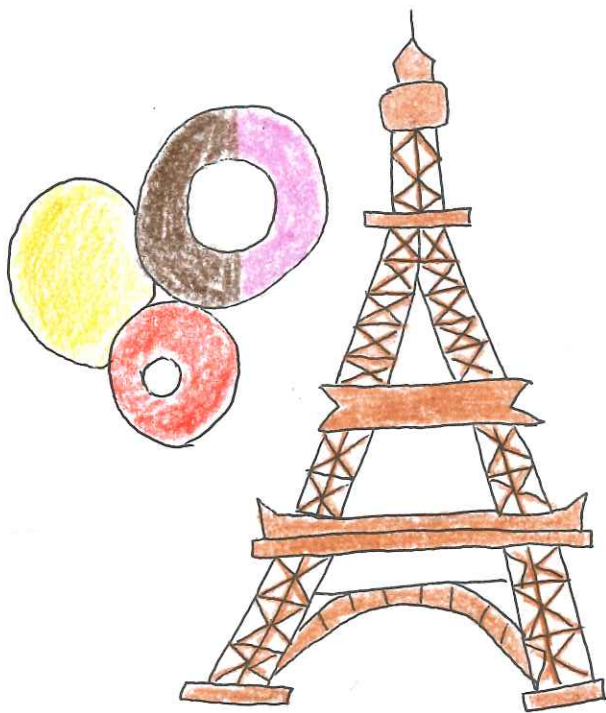
After all of Abella's hard work of calculations and planning, she has a great party celebrating her birthday! Her friends enjoy her party and have an awesome time at the bakery!



THE END

Abella's parents are going on a business trip for the weekend. She is planning to throw a birthday party for herself since she is turning 14 on Saturday. She can't wait to celebrate her birthday but the thing is how can her friends go to her family's bakery if her parent's aren't in charge of it?

Will she be able to think of a plan?



ABOUT THE AUTHOR

My name is Isobel Corben.

I am 13. I am in the school called Dulwich College Beijing in china. One of my favourite hobbies is baking, I love making cakes and cupcakes and I have always wanted to go to Paris! I really enjoyed learning about trigonometry and I wanted to include it in my story!

