

THE 2022 YOUNG MATHEMATICAL STORY AUTHOR (YMSA) COMPETITION

THE STUART J. MURPHY AWARD (THE 8-11 YEARS OLD CATEGORY)

LONGLISTED

'Detective Mathematical and the Stolen Painting' by Hira Adhikari (10 years old) at Downsway Primary School (UK)

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#YMSAMaths

Detective Mathematical and the Stolen Painting



by

Hira Adhikari

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Today I am going to tell you a very shocking story, the painting worth £90 billion also known as 'The Dream' was stolen!

It was a beautiful morning when I got a phone call from Mr Spencer, who was the richest celebrity in England, "Detective Mathematical, I need you to come now. 'The Dream' was stolen!" he said worriedly.

I quickly rushed to his gigantic mansion and met Mr Spencer. "Please find it as soon as possible! That painting is worth a fortune!" he urged. He showed me the place where 'The Dream' used to be hanged. A few minutes after being left alone to look around the place, a man came in and said, "Hi! My name is Adam, I'm a detective from Wales and I am also hired by Mr Spencer to look for the missing painting. I think we should work together and not compete, since it would be faster to find the painting," he said in a friendly tone. I felt sad that Mr Spencer didn't trust me to find the painting on my own, but I agreed. Anyway, it might be nice to cooperate with someone, just for once.

After a while, Adam spotted an order form from 'Premium Bakery' on the floor. The customer on the form was Polly Simpson. But sadly, it had a huge coffee stain covering the delivery address. Since we could not see the address clearly, I suggested that we should go to the bakery.

"Sure," Adam replied.



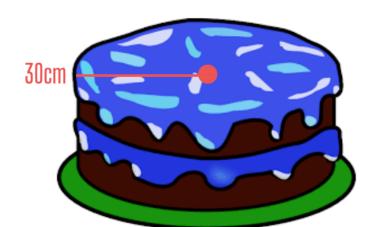
After a short car drive, we had made it to the bakery. We were greeted by a lady who introduced herself as Lucy. "Hi Lucy, my buddy and I are just wondering the address of this order," Adam said while showing her the order form. "Ok," Lucy answered while checking on her laptop, "The address is 27 SpongeBob Lane." When we were about to leave, Lucy suddenly asked, "Would you two please help me with something? It won't take up a lot of your time."

"Sure," I said. Lucy then took us to the kitchen.

I was amazed by the sight of the kitchen! It's just so cool, especially as I had never been to a bakery's kitchen before. After a while of gazing around in awe, I was wondering what Lucy needed us for when she explained,

"My customer ordered a birthday cake and he wants to know the area of the cake. He just needs to check if the cake could fit on the party table or not. All I know is that the radius of the cake I made is 30cm." Adam asked me if I could answer. I replied, "Of course, I'm a Maths Genius! The formula of a circle area is Area = π x radius². Since the radius is 30cm, the answer will be 30 x 30 x 3.14 cm²." Lucy nodded and she took a calculator out from the drawer. "The area of the cake is around 2827 cm². Thank you so much guys! I'm going to call my customer now." Lucy said joyfully. We said goodbye and then left for the address.





 $30 \times 30 = 900$ $900 \times 3.14 = 2827$

Area = 2827 cm^2

After what seemed like hours of driving through the beautiful countryside, we finally made it to the destination. It was an old medium sized barn with a big farm behind it. We knocked on the door. Only to see a sweet looking lady in her 60's answered the door. Surely she couldn't be the thief, could she?

"Hello Ma'am, are you Polly Simpson?" I asked while showing her the order form.

"Oh no, dear! that's my daughter! That is from when she bought a cake for my 60th birthday. Why don't you two come in to have a seat," she said softly. While taking a seat, Adam asked the lady,

"What's your name?"

"Susan Simpson," she answered.

"Susan, would you please tell us where we can meet your daughter?" I said.

"She's now working. The office is at 125 Mickey Avenue." Susan replied.

After collecting the needed information, we were thinking of leaving and saying goodbye. At the last minute, Susan gently asked, "Young fellows, would you mind helping me with a quick thing?"

"Of course!" I replied.

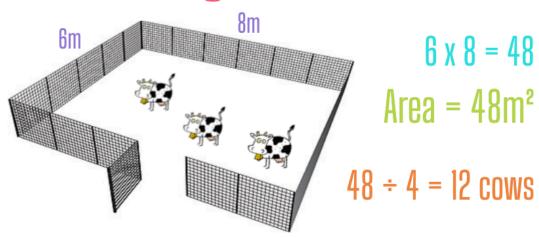
"Well, it's recommended that one cow will need 4m² to live. I am planning to buy some 6 by 8 meter fences to keep some cows. Would you please tell me how many cows I can keep in the area?" Susan explained.

"Certainly. Since I'm the Maths Genius! First of all, the formula to find the area of a rectangle is Area = length x width, so to find the area you multiply 6 meters and 8 meters which gets you 48 meters² and $48 \div 4 = 12$. Therefore, you can put 12 cows in the space." I explained.

"Thank you so much. Have a good day!" Susan said happily.

"Thanks for having us," I said as we left. We were determined to catch the thief and left for the address.

Area = Length x Width



We made it to Polly's office and rang the doorbell. A lady around the age of 25 answered stared at us blankly and said,

"Hi, may I help you with anything?"

"Hi, are you Polly Simpson?" Adam asked politely.

"Yes. Speaking." Polly replied.

"Ok Polly. Where is the painting 'The Dream'?" I asked.

"Isn't it in Mr Spencer's mansion?" Polly answered.

"No, I mean where is it now?" I asked again, getting impatient.

"What do you mean?" Polly asked.

"Come on! We know you stole it. Stop pretending." I said.

"What! How could I? Come in so you can explain," she said in shock.

The office was a mess with documents scattered everywhere, mugs in random places and plates and cutlery all over the desks. In all the mess somehow we managed to find chairs to sit on.

"Are you the only one working in this office?" I asked Polly.

"No, I am the secretary of Mr. Norris," Polly said.

"Ok, what do the two of you do?" I questioned.

"We run a jewellery business," Polly said.

"Where did you get the jewellery from? Stealing?" I asked.

"Hey, we don't steal!" Polly exclaimed.

"If you say so, why don't you let us look around?" I asked.

"Why not?" Polly said confidently.



After looking around for a while, Adam spotted a metal door with a number pad with a 4-digit passcode to be inserted. I asked Polly what was the passcode but she said that her boss wouldn't dare telling her. We looked around and Adam pointed at a picture with triangles as mountains hanged above Mr Norris' desk. The triangle was that one was marked 70 at the base and 84 as the height. Could that be a hint for opening the door?

"I've already tried 7084 or 8470, the door won't be opened!" Polly revealed. We would like to laugh at her silliness but instead, we politely smiled to her. With trembling hands, I pressed a 4-digit passcode, and the door just opened in front of us. We saw 'The Dream'! Polly's mouthed dropped to the floor and mine almost did too.

"I've tried millions combinations of numbers! How could you possibly open it the first time?" Polly said while looking at me in disbelief.

"Because I'm a Maths Genius! The first thing that came up to my genius brain was to find the area of the triangle. The formula for the area of a triangle is Area = Base x Height \div 2. So $84 \times 70 = 5880$. Next I divided 5880 by 2 is 2940. So I punched in the code. And to our surprise, it actually worked!" I explained.

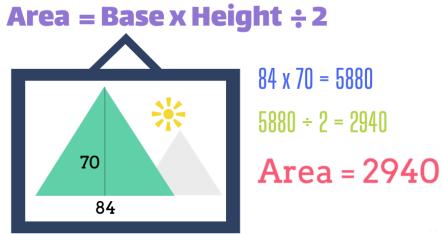
"Please don't arrest me! I promise I knew nothing about 'The Dream'!" Polly said.

"You should explain to the police!" I declared.

After about 10 minutes of waiting, the police finally arrived.

"Thanks a lot for your great work!" the head officer said, "I don't know if you'll believe it but this place is the second most wanted villain's hideout. We've been looking for him for years. We're glad you found this place for us and many stolen valuables are now found." I was amazed.

I left Polly crying to the police and was about to get Adam to go to Mr Spencer's, but I couldn't find him. I didn't think much, I just needed to return the painting to Mr Spencer as soon as possible.



I arrived at Mr Spencer's Mansion with 'The Dream'. Mr Spencer thanked me a lot and was over the moon.

"Oh Detective Mathematical! I knew I could count on you!" he while giving me a cheque in reward. I left feeling glad that the case was finally solved and I could help out someone else. I just missed Adam as I couldn't have done it without him.



One Week Later...

It was a fine morning with a bit of rain. My phone rang, it was Mr Spencer,

"Hello?" I said, wondering what was happening this time.

"Detective Mathematical, I need you to come now. You won't believe it! 'The Dream' got stolen yet again!" he cried. I couldn't believe my ears!

"Oh no! Are you going to hire Adam again?" I asked.

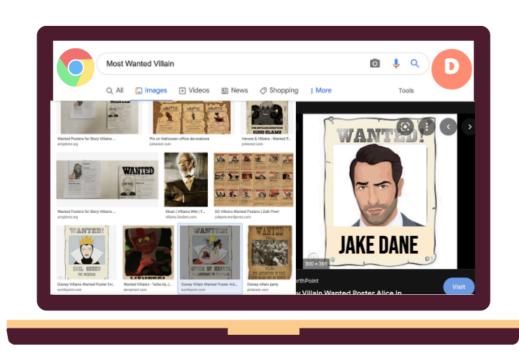
"Who's Adam?" he was confused. I was confused too.

"Adam, The detective from Wales!" I explained.

"I have no idea what you're talking about," he replied. At that point, I was suspicious but I told him I would come as soon as I could and hung up.

I was wondering why 'Adam' was in the mansion when a small thought popped in the back of my head. Surely that wasn't it right? Surely there was no way.

I decided it was worth a shot and opened my laptop. I searched 'Most Wanted Villain' and sure enough a picture of a face identical to 'Adam's' was there, and underneath was his real name, Jake Dane. 'Adam' had stolen 2 of 3 most famous paintings by Autumn Gibson: 'The Faraway', 'The Overnight' and finally what 'Adam' was after 'The Dream'. I knew at that moment what I needed to do next...



TO BE CONTINUED...

Blurb- When a great mystery arrives and problems need to be solved, everyone's head turns to one person: Detective Mathematical! One day, the world's most expensive painting was stolen and Detective Mathematical was called to find it. Everything seemed to be fine in the beginning but then something be turned fishy...

About the Author - Hira Adhikari is a 10-year-old girl in England from Downsway Primary School. This story was inspired by the great film "Enola Holmes" on Netflix.