**THE 2025 YOUNG MATHEMATICAL STORY AUTHORS (YMSA) COMPETITION**

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

# LONGLISTED

‘How To Be Fair?’

by Aiden Tang 8 (years old)

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**#YMSAMaths**

# How to be FAIR?

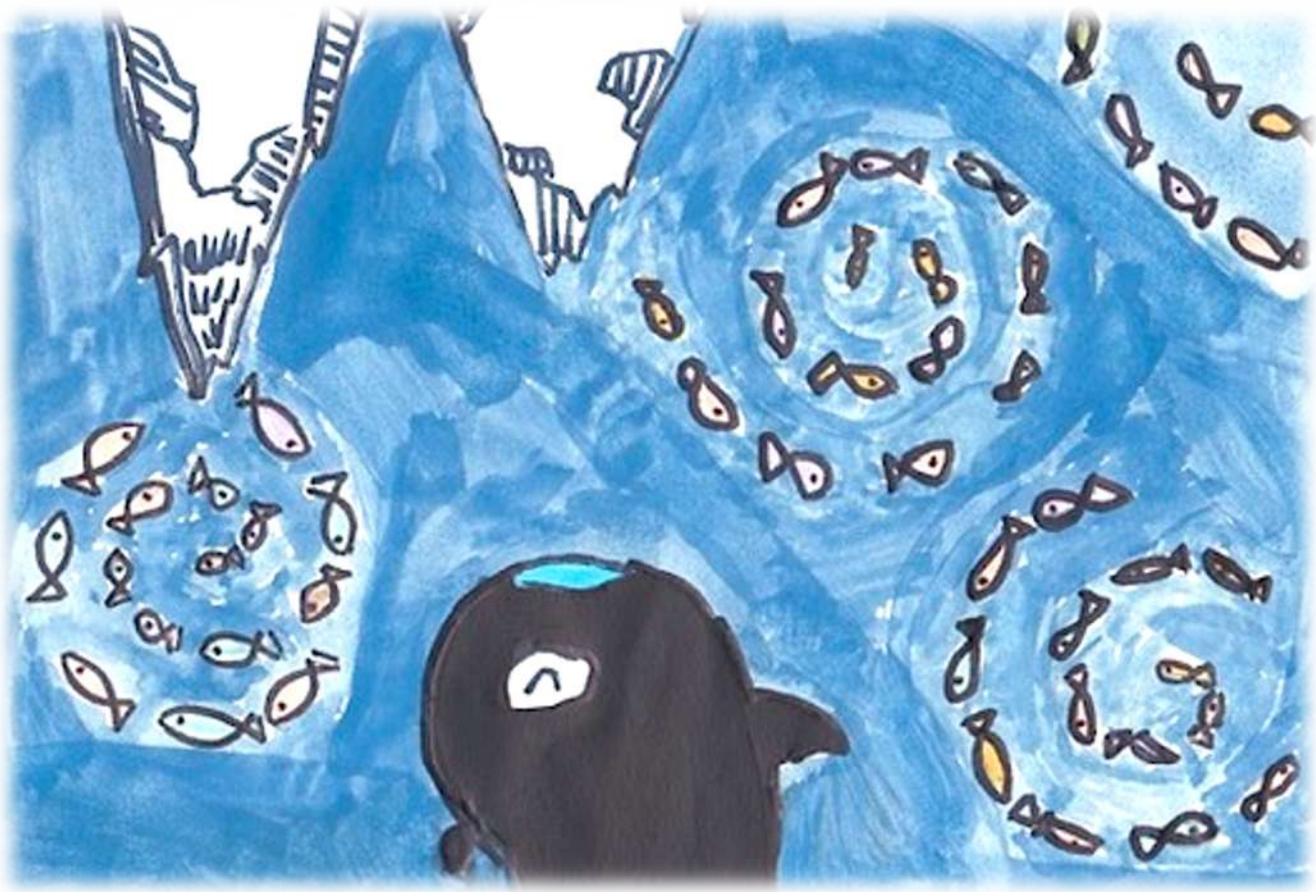
By Aiden Tang

Once upon a time, there are 2 curious, giant and active killer whales. They lived in a place named Antarctica. In Antarctica, there are lots of “tasty” animals. The killer whales really love to catch seals and penguins as their meal. The killer whales’ snacks are fish, so they used to catch a lot of fish every day.

The 2 killer whales are called Marble and Sapphire. Marble loves to catch fish one by one, but Sapphire loves to catch fish bunches by bunches. Usually, Sapphire catches more fish because one bunch has more than 10 small fish. However, Marble usually catches big fish because big fish mostly live alone in the caves or under the rocks.

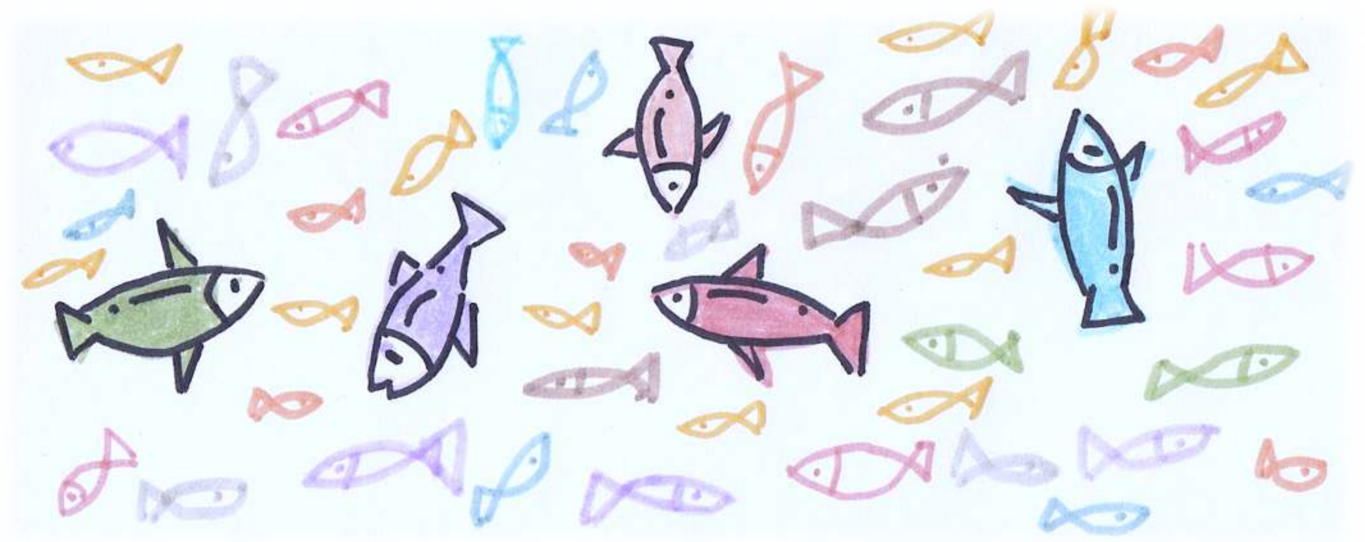
Today is the Happy Iceland Party. Sapphire and Marble decided to catch a lot of fish together because they want to share them with their 3 friends in the party.

Without hesitation, Sapphire set off to coast of Antarctica. Sapphire caught 9 big bunches of fish. In each bunch, there are 15 small but delicious fish. Sapphire is very proud of the number of fish that she caught. She thinks she is the world's number one in fish catch.



Marble went to the other side of Antarctica to find big fishes like humpback whales. They live in deep places, so he swam deep into the sea. After his hard work, Marble was tired of chasing and biting. He successfully caught 25 giant fish. He was so excited to show Sapphire the big fishes that he did not notice 10 of them swam away.

It's Party Time! The killer whales gathered at the Seaweed Garden. Sapphire and Marble brought all the fish and prepared to share with their 3 friends Jade, Amber and Emerald. Everyone is excited and they can't wait to start the feast.



"How can we share them?" asked Emerald.

"We can share the fish by putting them onto our plates one by one." said Marble.

"That's going to take too long. We have 1000 fish here!" said Amber.

"No, we don't have 1000 fish here!" said Sapphire.

"Then how many fish do we have?" said Amber.

"Let's count them one by one." answered Marble.

"Not again… Let's do something smart!" complained Jade.

Jade looked at the fish that brought by Sapphire and Marble. The big fish and small fish are mixed together. Jade started to ask Sapphire, “Do you know how many fish you caught?”

“No,” answered Sapphire, “But I had caught 9 bunches of fish. Each bunch has 15 fish.”

Sapphire then asked Marble, “How many fish did you catch?”

“No idea,” answered Marble, “But I had caught 25 fish, 10 of them swam away while I was dancing.”

“That’s easy. I know you had caught 15 fish! That’s calculated by minus 10 from 25.” said Emerald.

“That’s the same number as 1 bunch of fish caught by Sapphire.” said Amber.

“That means we have 10 bunches of fish caught together by Sapphire and Marble! Do anyone of you know 10 x 15?” asked Jade.

“Yes, yes, I know it. It is 150! Now we can share them equally among 5 of us.” said Emerald.

“That means we need to divide 150 by 5. Oh, what a big number! I don’t know how to calculate it.” said Sapphire.

Marble said, “Let’s just go back to share these 150 fish one by one!”

“Not again!” The others said together.

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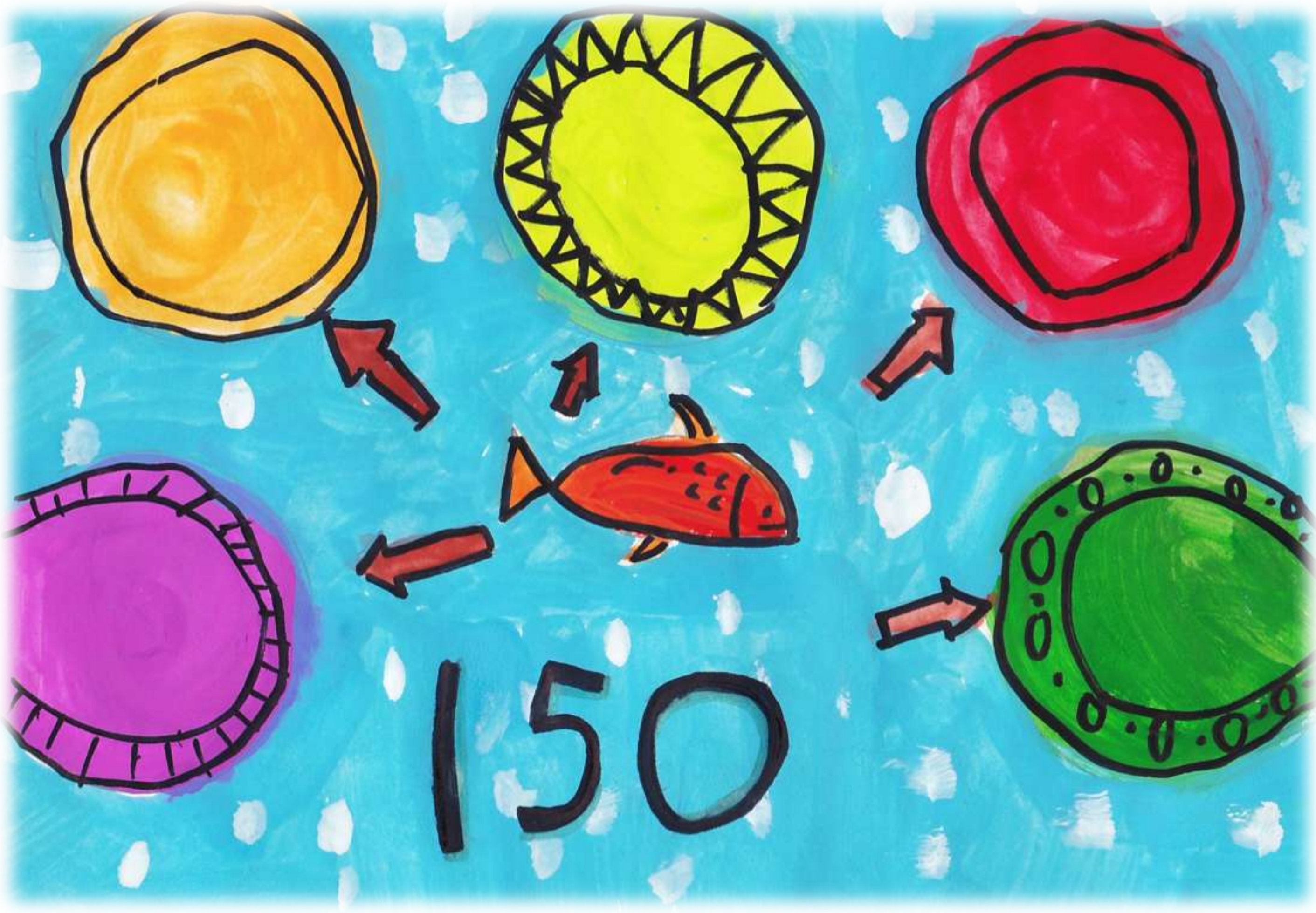


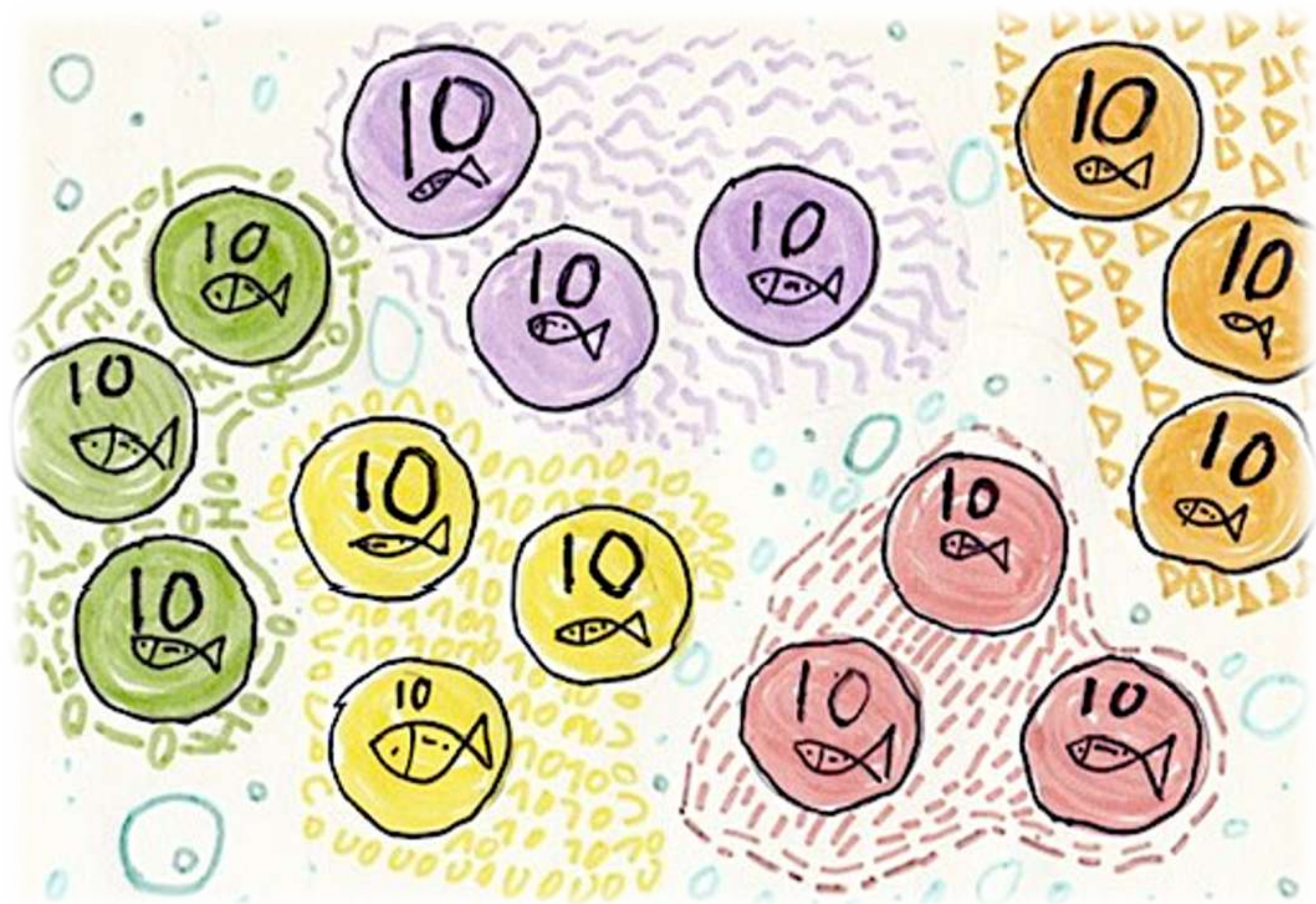
The killer whales thought for a while and they decided to group the fish first. They put 10 fish in each group and they came up with 15 groups.

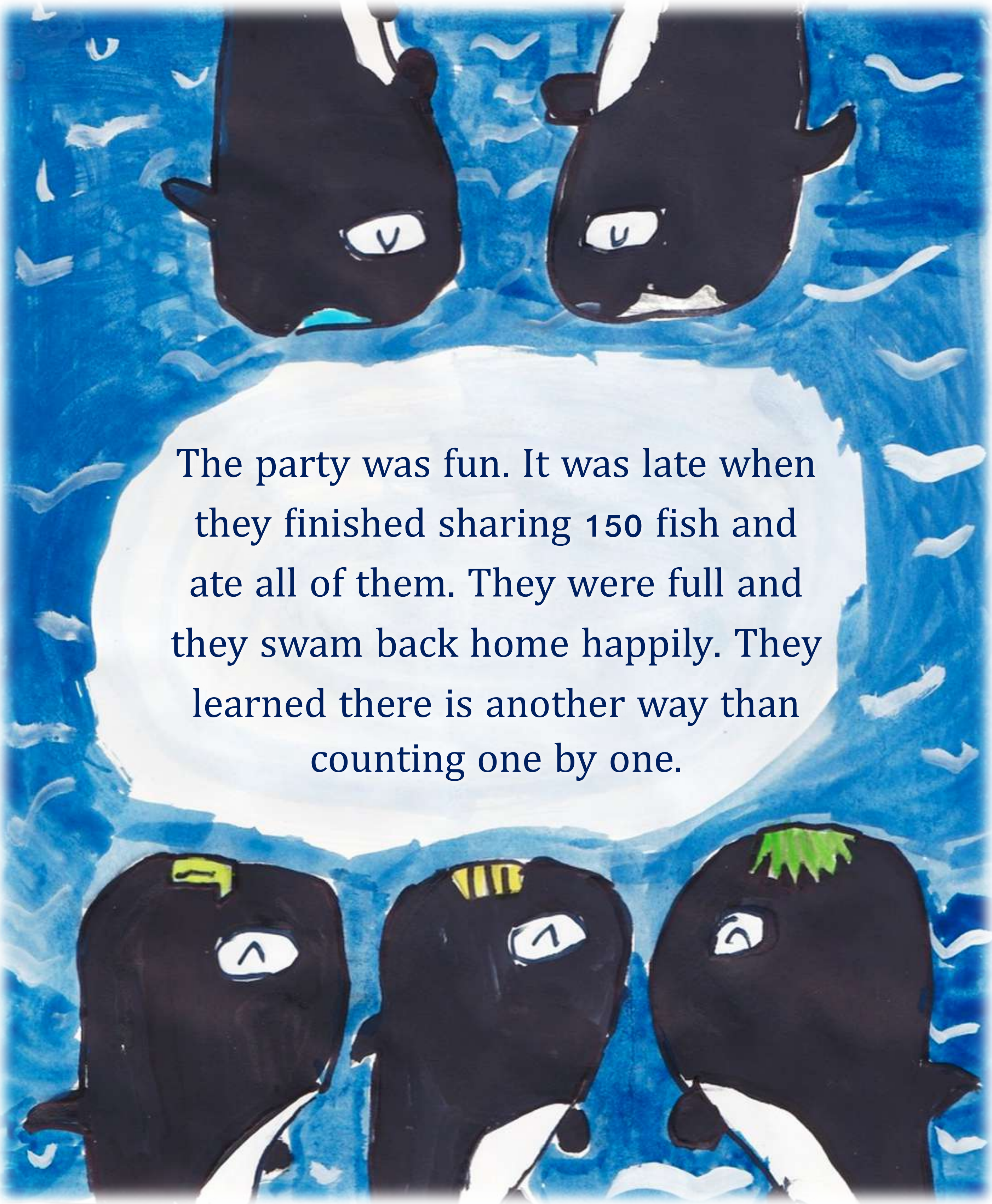
"So now we just need to divide 15 by 5. Anyone know the answer?"

"I know! That's 3!" said Emerald.

"So each of us get 3 groups of fish, that equals to 30 fish." said Jade.

"That means 150 / 5 = 30." said Sapphire.





The party was fun. It was late when they finished sharing 150 fish and ate all of them. They were full and they swam back home happily. They learned there is another way than counting one by one.