THE 2025 YOUNG MATHEMATICAL STORY AUTHORS (YMSA) COMPETITION

THE STUART J. MURPHY AWARD

(THE 8-11 YEARS OLD CATEGORY)

SHORTLISTED

‘The Search for Decimals and Fractions’

by Liam Ng (10 years old)

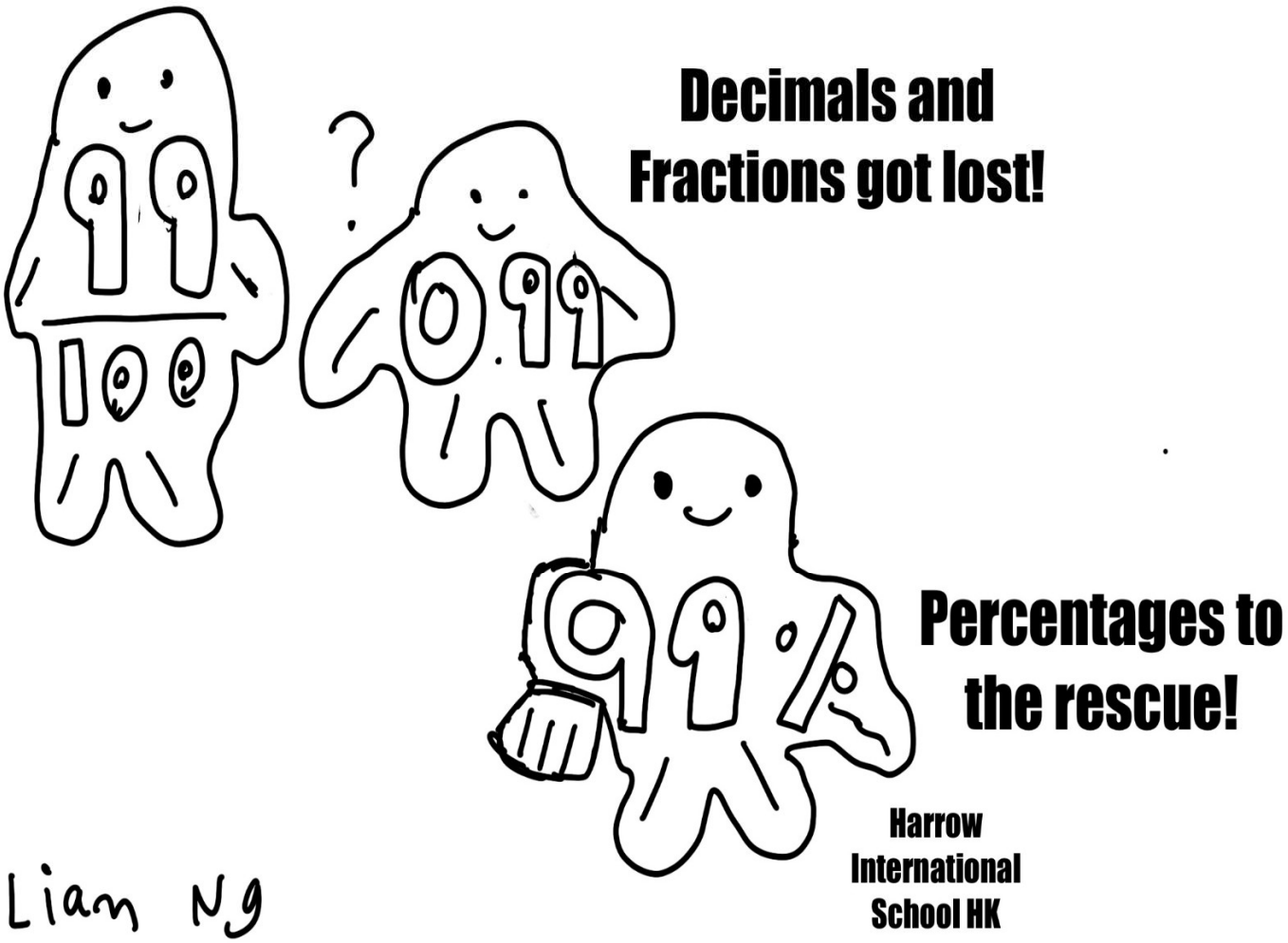
at Harrow International School Hong Kong (China)

You can read the author’s inspiration for the story and the judges’ comments on:

www.mathsthroughstories.org/ymsa2025

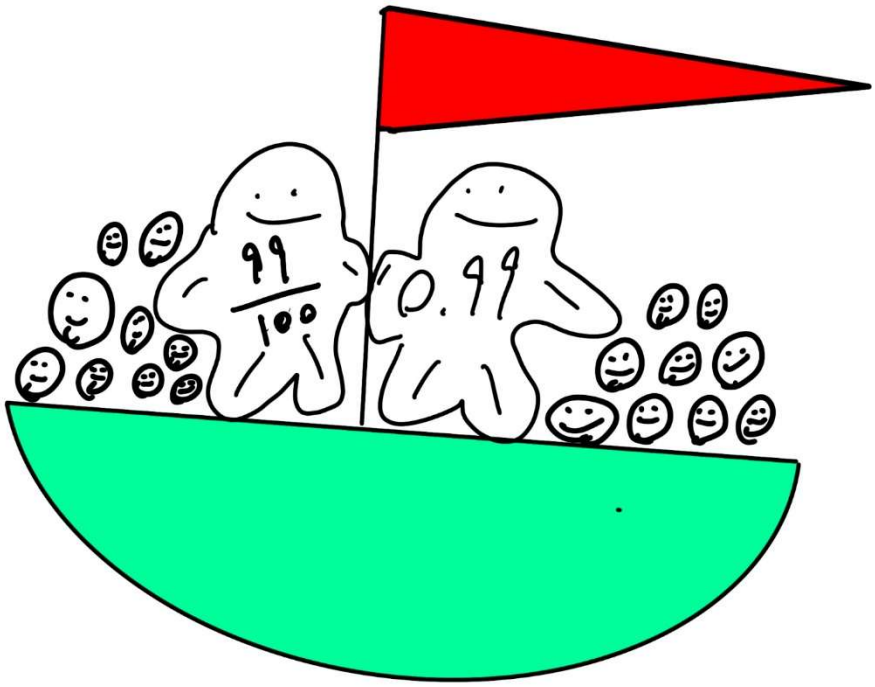
#YMSAMaths

The Search for Decimals and Fractions



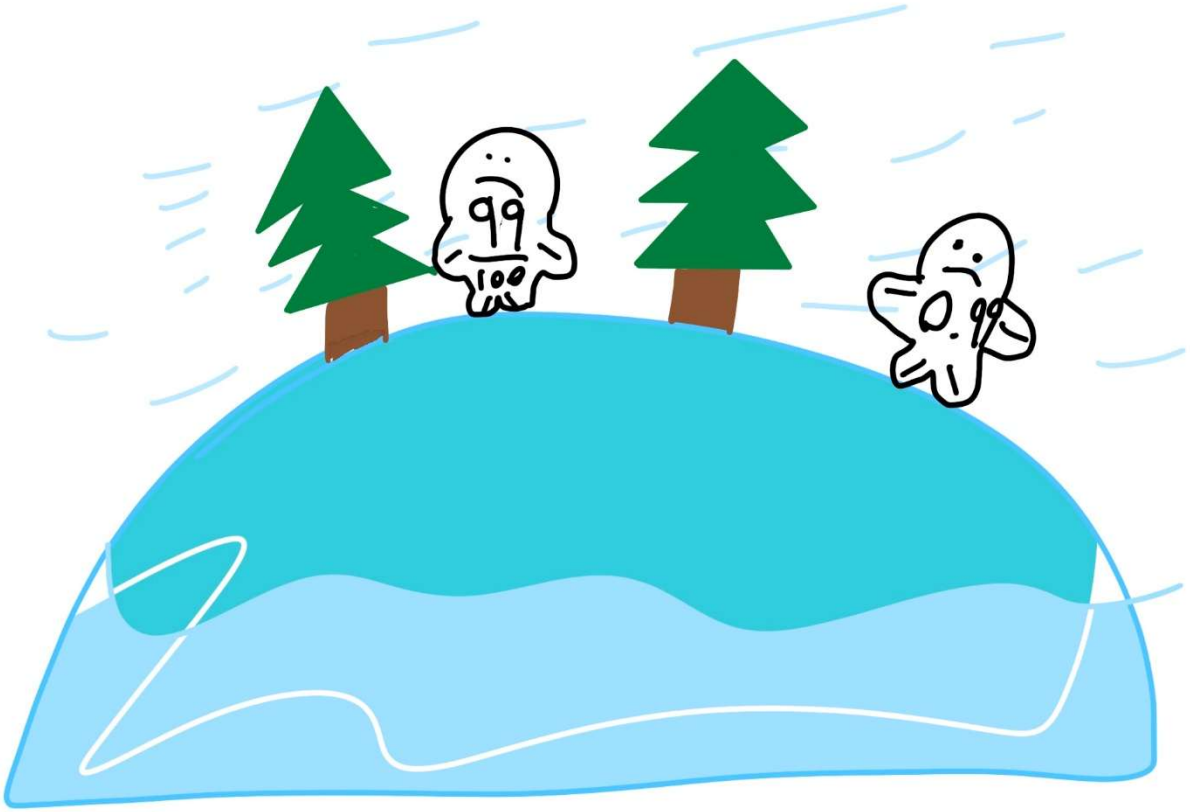
The SEARCH for Decimals & Fractions!

There was a planet which looked a lot like Earth except it was called the Decimal Way where the math symbols are the living creatures. Out of all the math symbols, the Decimals are the most special because they are very straight forward. They are best friends with the Fractions and Percentages.

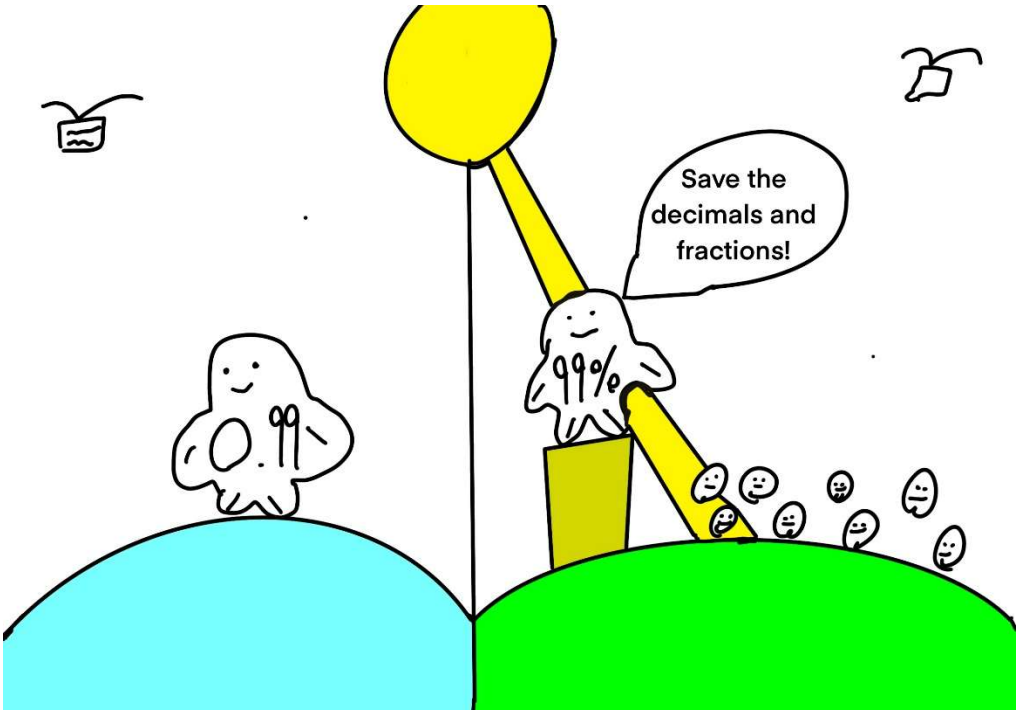


One day, the leader of the Decimals **0.99** set out on a journey to the North Polar regions of their planet on a ship. He brought with him 18 Decimals and Fractions along with the leader of the Fractions **99/100**. While **0.99** was gone, he asked the Percentages to take care of Decimal Way.

A week later, the hull of the ship had frozen and the crew had to abandon the ship and they decided to go to Decimal Island which was uninhabited. They were very unlucky because there were no plants or fruits to eat. Not only were they starving, they also got hit by a terrifying winter storm which blew them all away into the trees. However, they managed to send a message by a puffin saying they needed help to the Percentages.

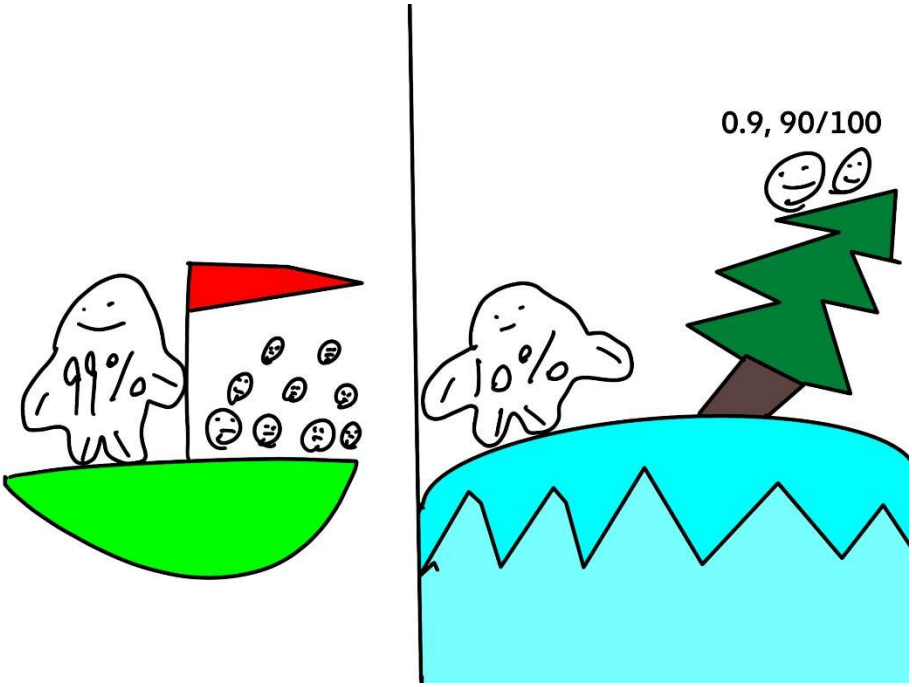


"***99%**, we are in desperate need of your help as we are stranded on Decimal Island and we have all lost contact with each other! Please send your Percentages to look for their best friends and peers*," **0.99** screamed.

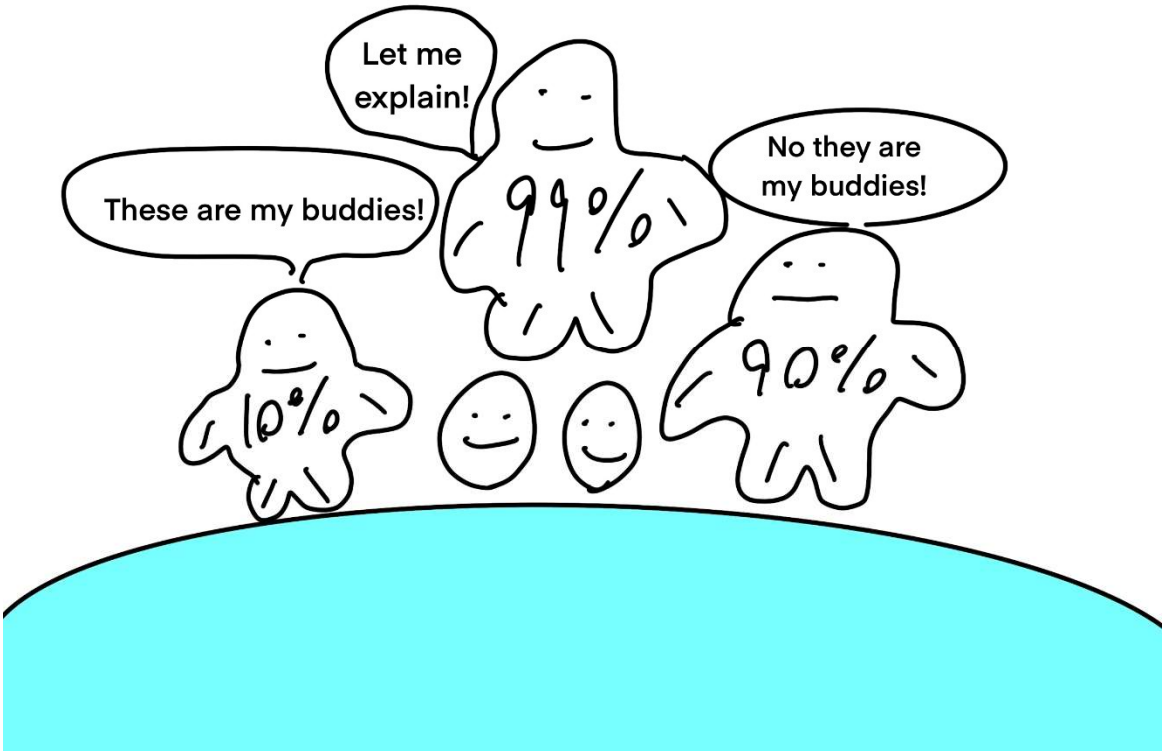


When the puffin reached **99%** and relayed the message, **99%** gathered his men and ordered, "***10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%****! I need you to come with me and voyage to the polar regions to find your best buddies, the Decimals and Fractions that resemble you!*"

They set out to find their best friends and it was a long and tough journey but they finally made it to the Decimal Island. **10%** started his search looking into the trees and found **0.9** and **90/100** stuck in the branches. He thought hard to himself, 10 + 90 = 100, perhaps these are my buddies. **10%** took them back to **99%** and said proudly, "*I found my best friends!*"



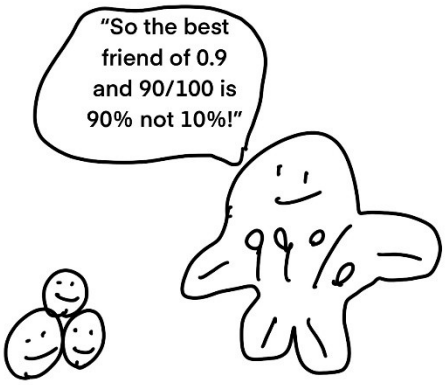
90% shouted, "*Wait a minute! These are MY BUDDIES!*"



They started having an argument over whose best friends **0.9** and **90/100** are.

99% being the leader of the Percentages stepped out and explained, "*If you split a **100%** into 10 parts, it would become **10%** each. **90%** would be made up of 9 of these **10%**. If you split **1.0** into 10 parts, it would become **0.1** each. **0.9** would be made up of 9 of these **0.1**. If you split **100/100** into 10 parts, it would be **10/100** each. **90/100** would be made up of 9 of these **10/100**. Hence they all resemble each other but are expressed differently!*"

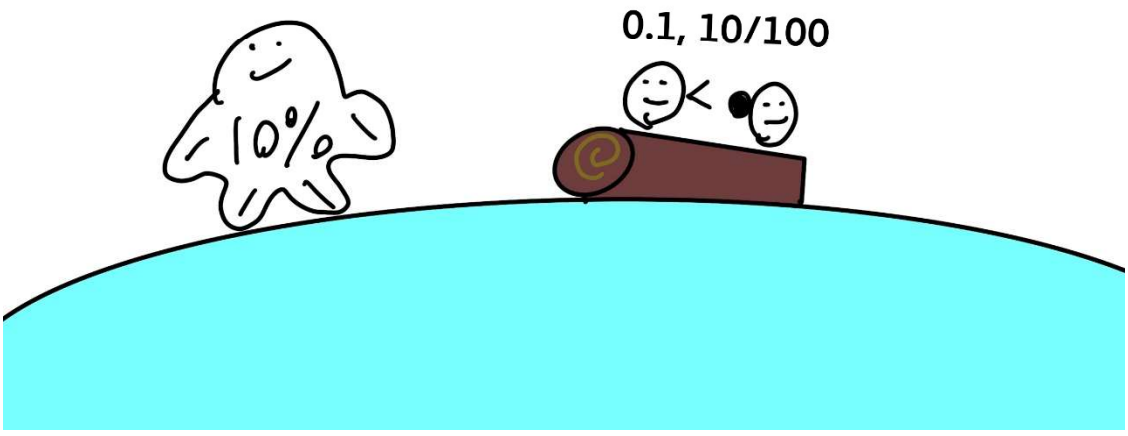
10%	**0.1**	**10/100**
20%	**0.2**	**20/100**
30%	**0.3**	**30/100**
40%	**0.4**	**40/100**
50%	**0.5**	**50/100**
60%	**0.6**	**60/100**
70%	**0.7**	**70/100**
80%	**0.8**	**80/100**
90%	**0.9**	**90/100**
100%	**1.0**	**100/100**



As **90%**, **0.9** and **90/100** hugged each other, **99%** announced, "*So the best friend of **0.9** and **90/100** is **90%** and not **10%**!*"

10% quickly used the same concept. If you split a **100%** into 10 parts, it would become **10%** each. **10%** would be made up of 1 of these **10%**. If you split **1.0** into 10 parts, it would become **0.1** each. **0.1** would be made up of 1 of these **0.1**. If you split **100/100** into 10 parts, it would be **10/100** each. **10/100** would be made up of 1 of these **10/100**.

10% finally realized that his best friends should be **0.1** and **10/100** so he set out to the trees again to look for them. He found them sitting on a fallen tree playing rock, paper, scissors and they were very relieved to be united with **10%**.



As **99%** waited on the ship, one by one, the Percentages brought back their best friends.

20% brought back **0.2** and **20/100**

30% brought back **0.3** and **30/100**

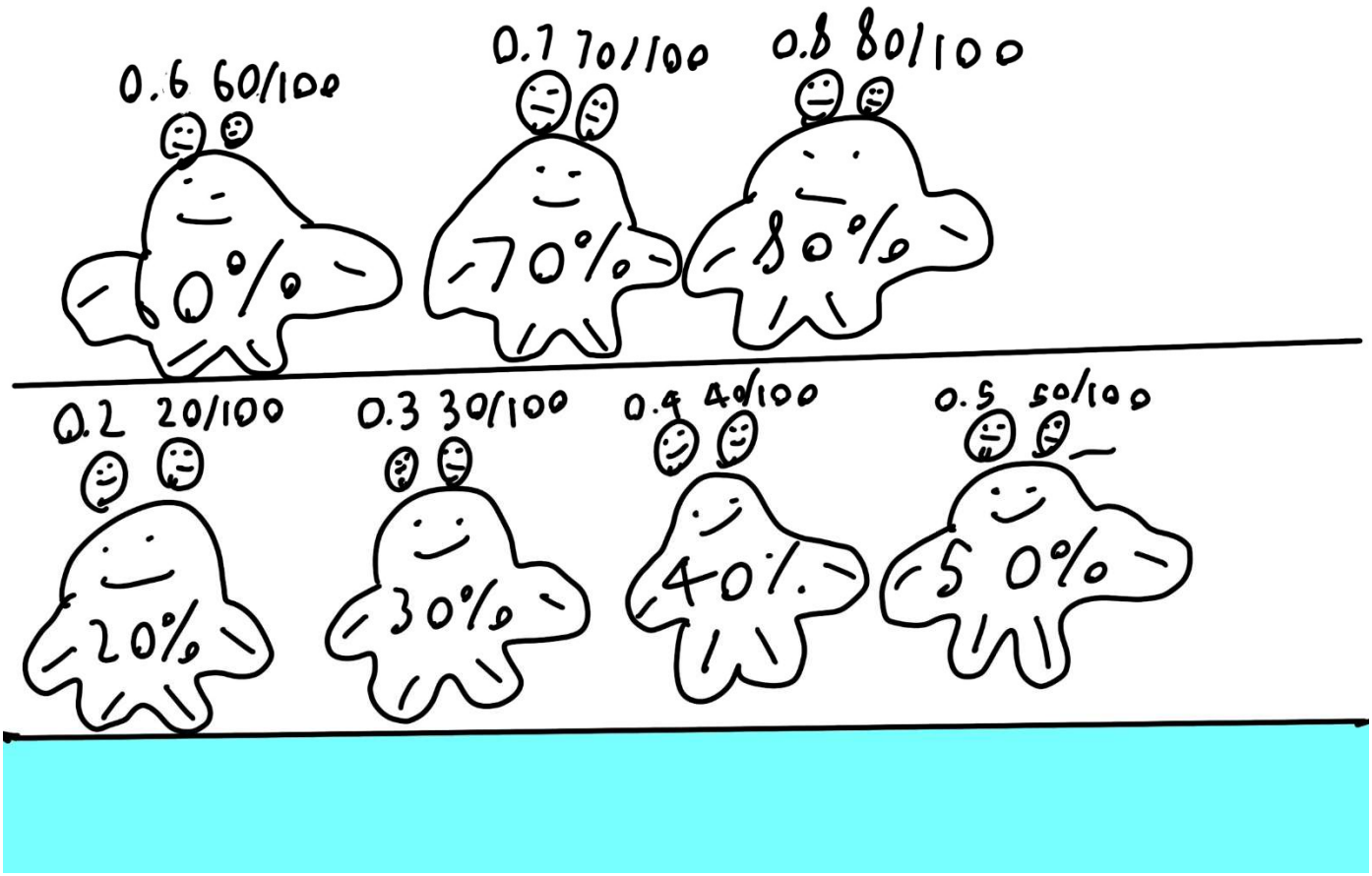
40% brought back **0.4** and **40/100**

50% brought back **0.5** and **50/100**

60% brought back **0.6** and **60/100**

70% brought back **0.7** and **70/100**

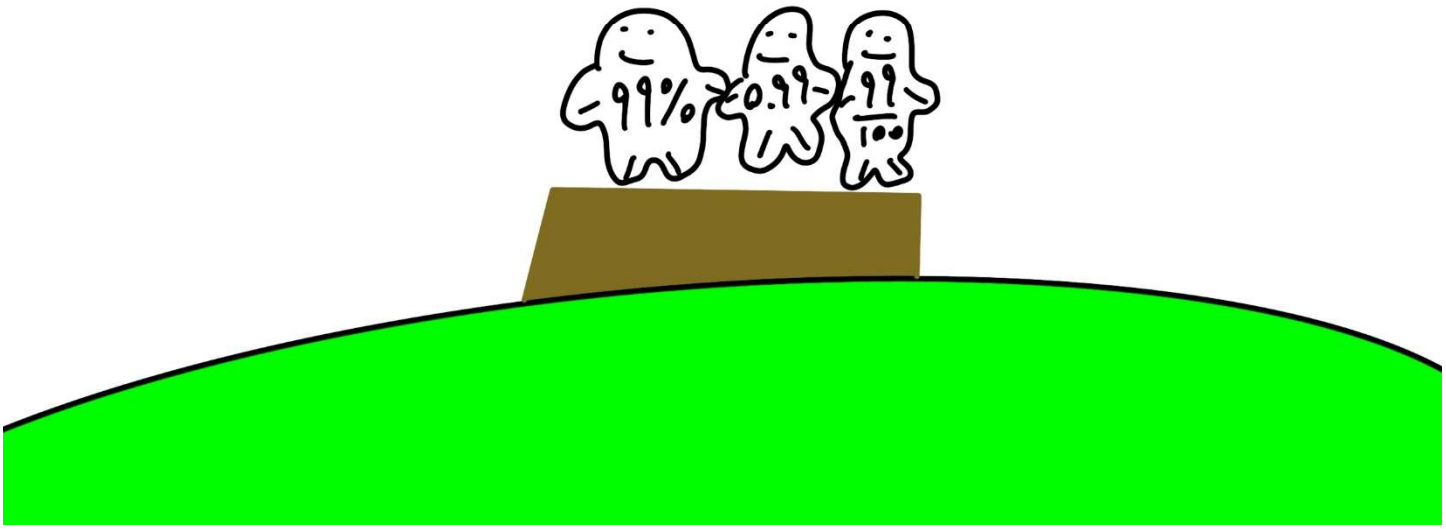
80% brought back **0.8** and **80/100**

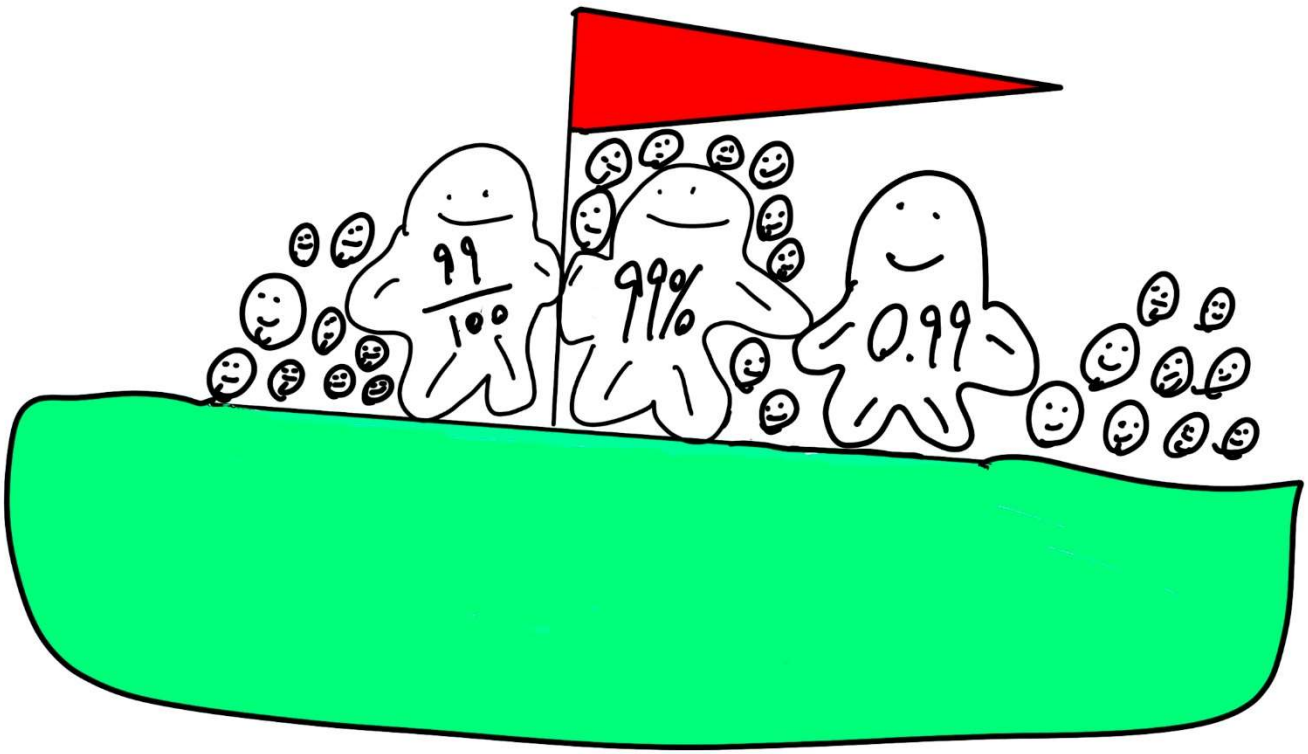


Once everyone returned safely to the ship, **99%** asked all the Percentages, Decimals and Fractions, "*Do you know who my best buddies are?*"

"*YES!* ***0.99*** *and* ***99/100****, our leaders!*" Everyone shouted.

If you split **1.0** into 100 parts, it would become **0.01** each. **0.99** would be made up of 99 of these **0.01**. If you split **100/100** into 100 parts, it would be **1/100** each. **99/100** would be made up of 99 of these **1/100**.





Everyone boarded the ship and set sail back home. When **0.99**, **99%** and **99/100** arrived back home, all the citizens were excited to hear about the journey. The Percentages saved the day and became the most special out of all the math symbols which made the leader **99%** very proud.