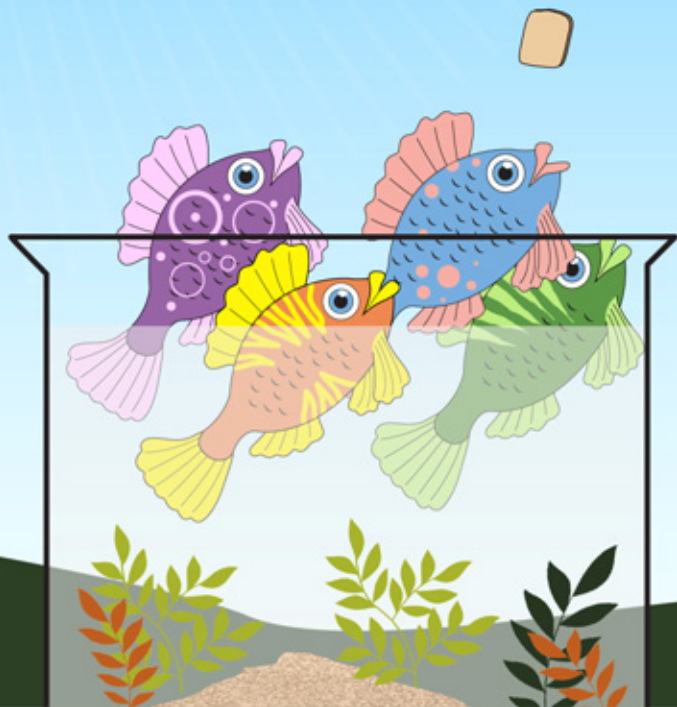


Fish Billionaire

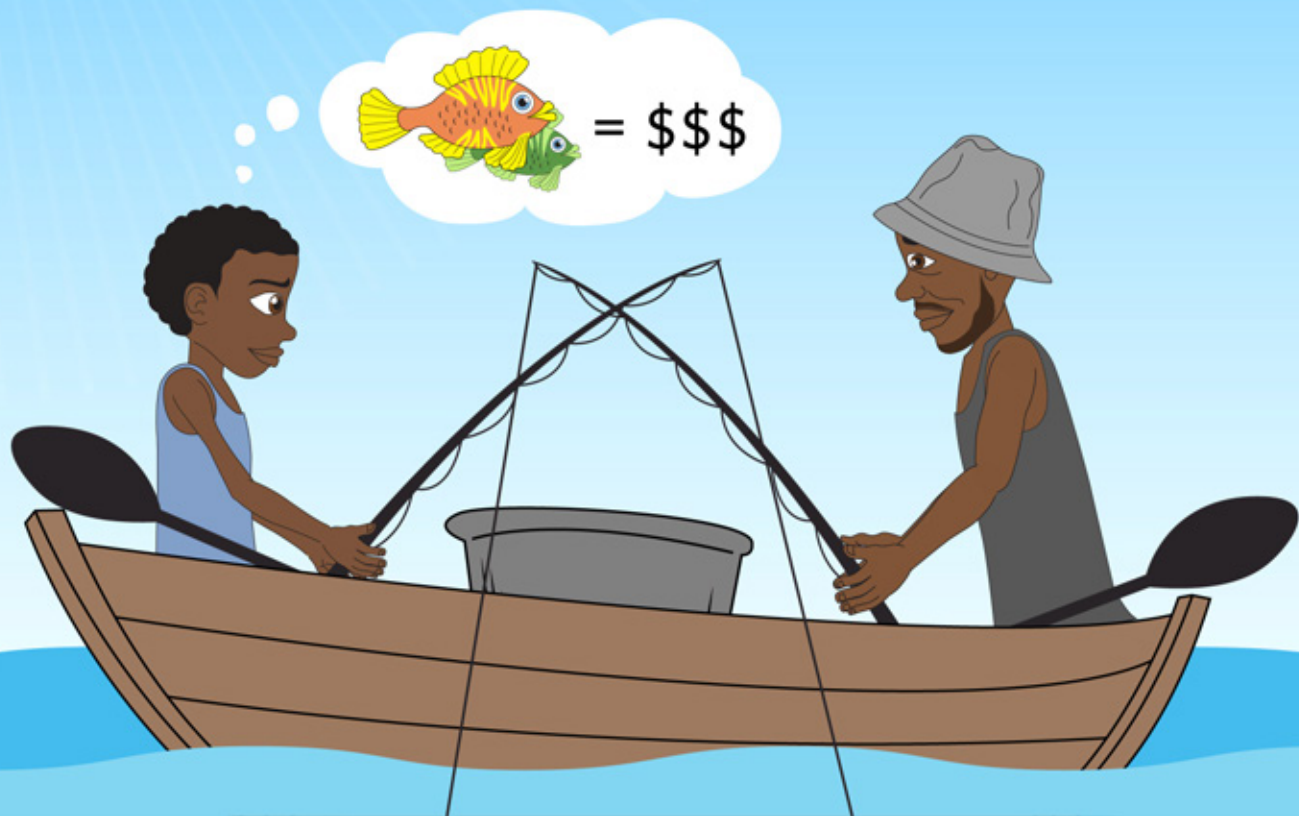
halves, thirds and quarters



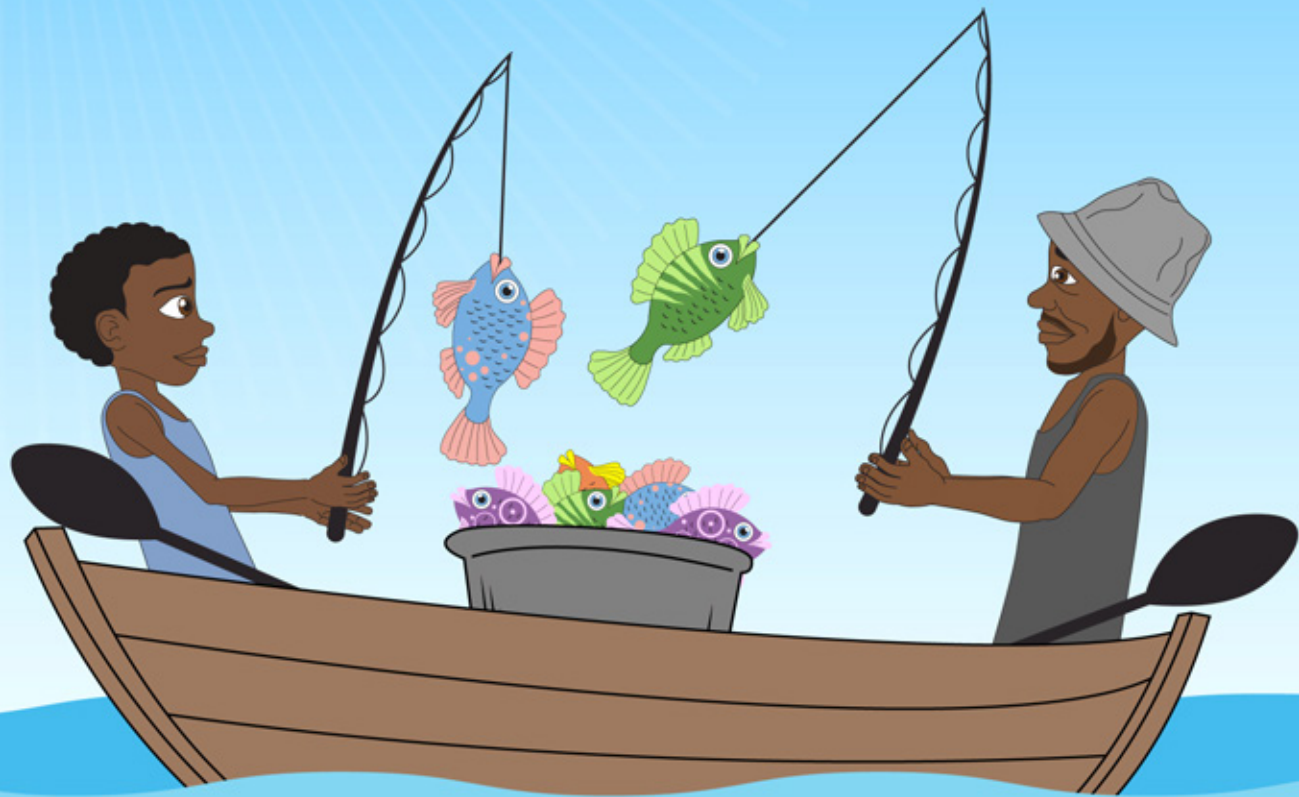
Age
Umri
7+



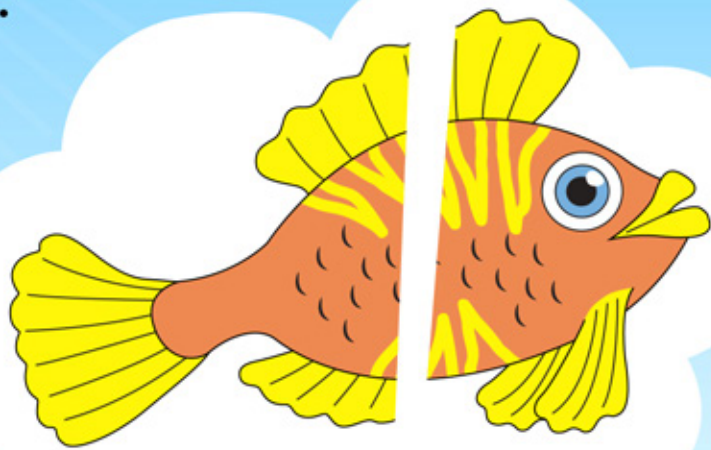
One day, Koba went fishing with Mzee Kigo.
He wanted to get rich by selling fish.



They agreed to divide in half any fish they caught.



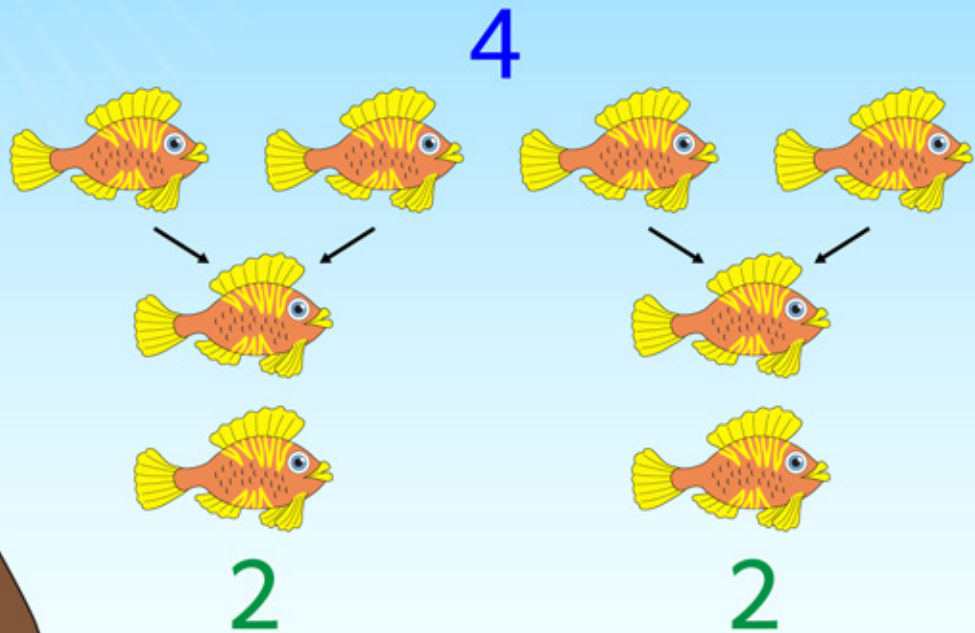
Koba asked if that meant cutting the fish into two pieces.



“No...half doesn't always mean cutting something in two.”



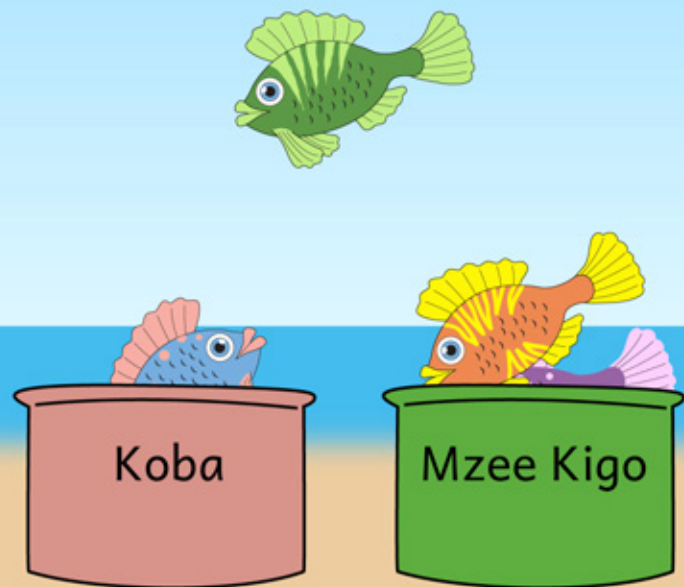
It can mean taking a group of things and dividing them into two equal groups like this.”



After a few hours, they came back to shore.
Mzee Kigo gave Koba two buckets and told him
to divide the fish equally between the two of them.



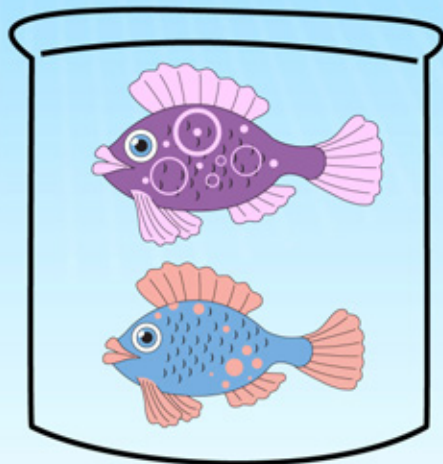
“One for Mzee Kigo, one for me,
a second fish for Mzee Kigo,
a second fish for me.”



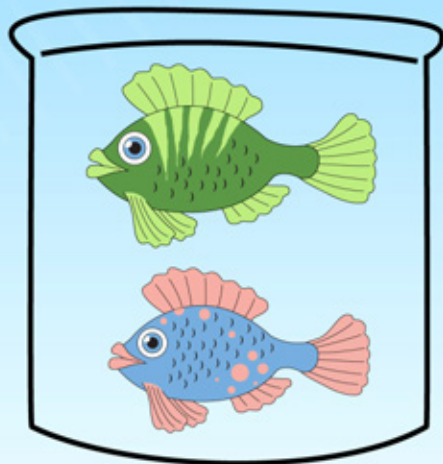


Ah, there's one left,"
said Koba.

Mzee Kigo told Koba that in math the leftover is called the **remainder**. He told him to put it back in the sea.



2



2

remainder

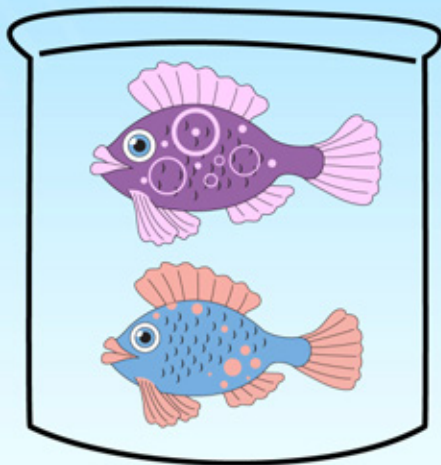


1

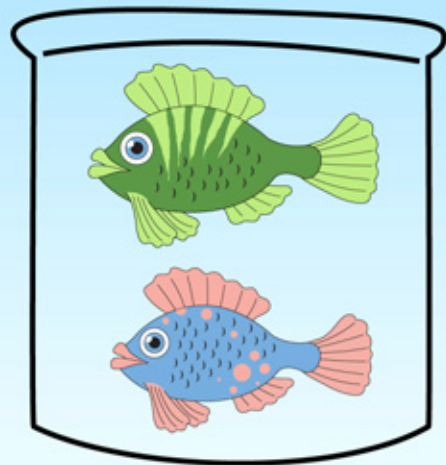


“Now you see...I have **half**
of the fish and you have **half**.
No need to fight over the remainder!”

4

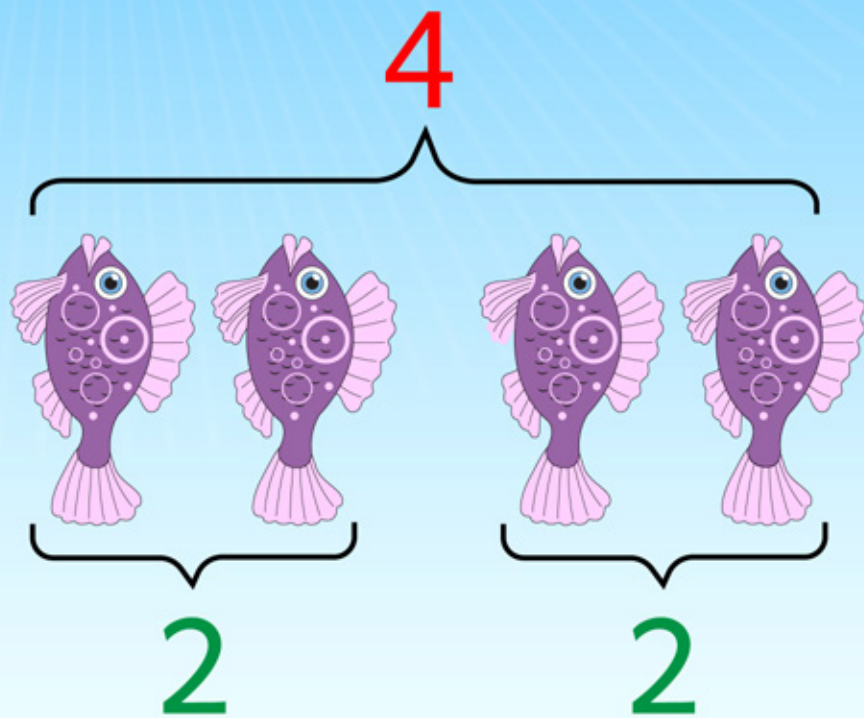


half



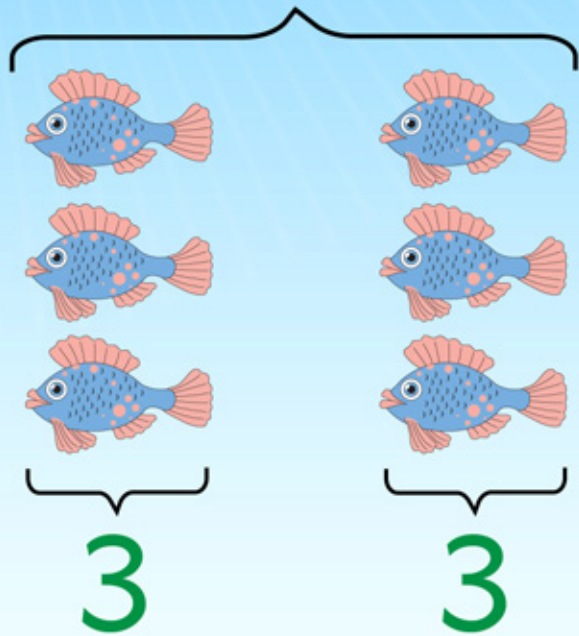
half

“I get it! Half of four is **TWO**.”



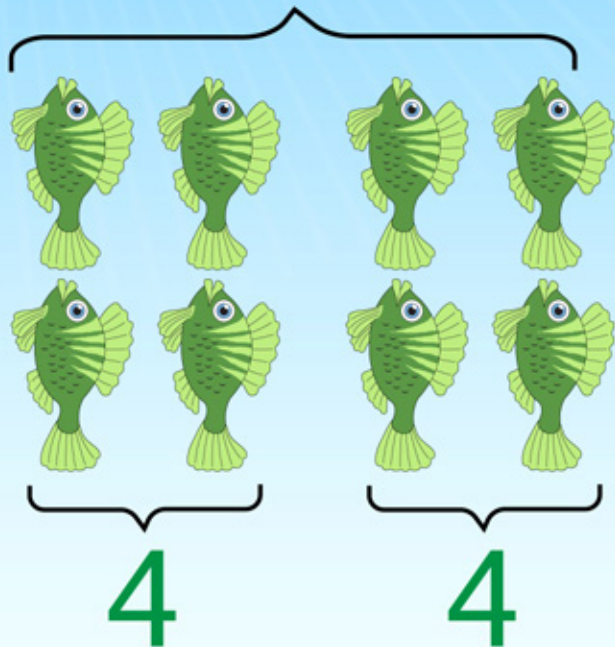
Half of six is **THREE**.

6



Half of eight is **FOUR**.”

8



“Well done! Now you understand the concept of half very well.”



Koba took his fish home
and put them into a tank.

He smiled and looked
forward to catching
more fish.



The next day, Baraka came fishing as well. They caught more fish than the day before. They agreed to divide the fish between the three of them.



After a while, they came back to shore.
Baraka divided the fish into three
buckets, but he had two fish leftover.



Mzee Kigo told him to throw the two lucky fish back into the sea.

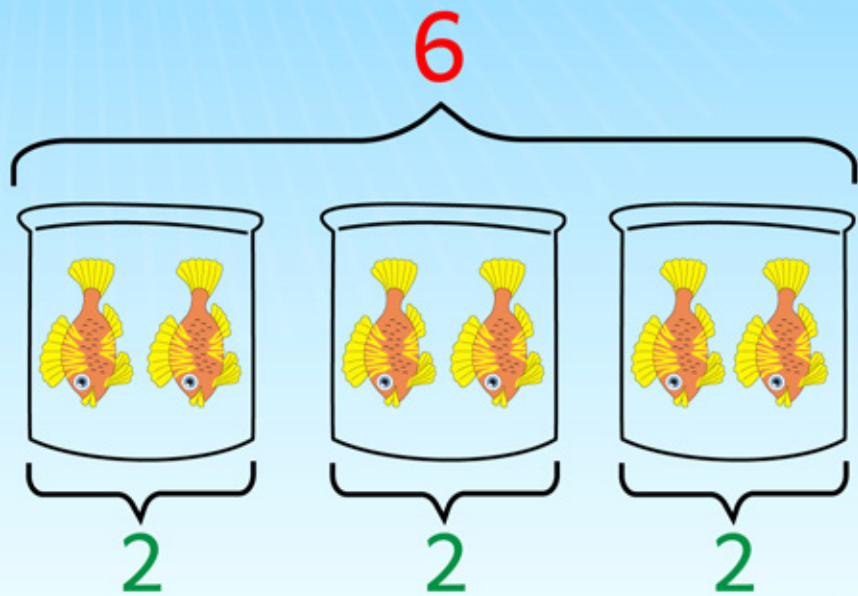




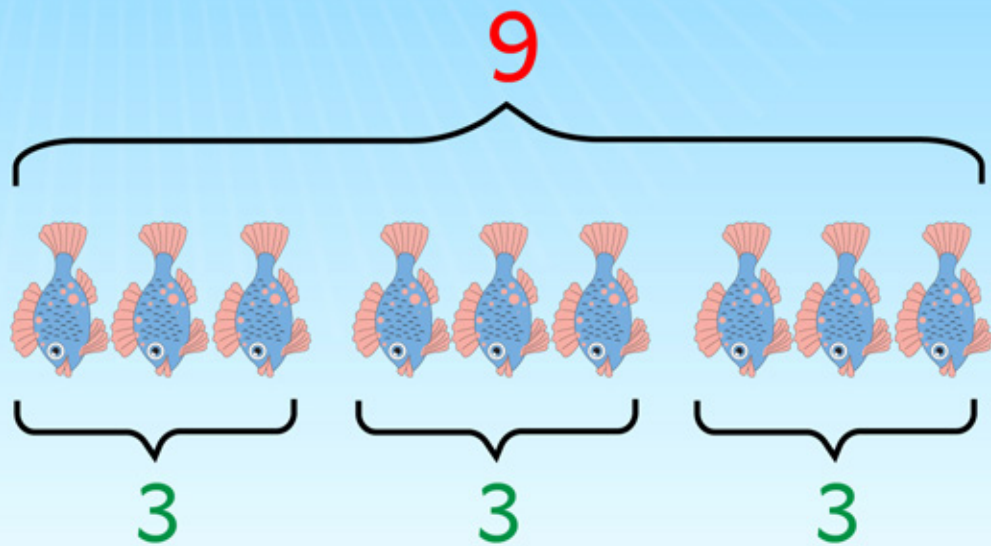
“Today we caught **eight** fish. The **three of us** get two fish each, because the two remaining fish can’t be divided between three people equally. Put the two remainder fish back into the sea, Baraka.”



“So now we’re left with **six** fish.
Between the three of us, we each get **two** fish.”

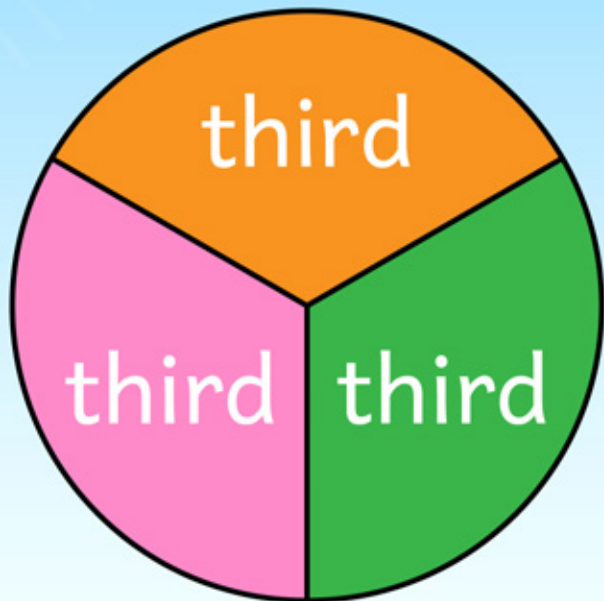


If we had stayed out longer and caught **nine** fish, we would have gotten **three** each, is that right?"

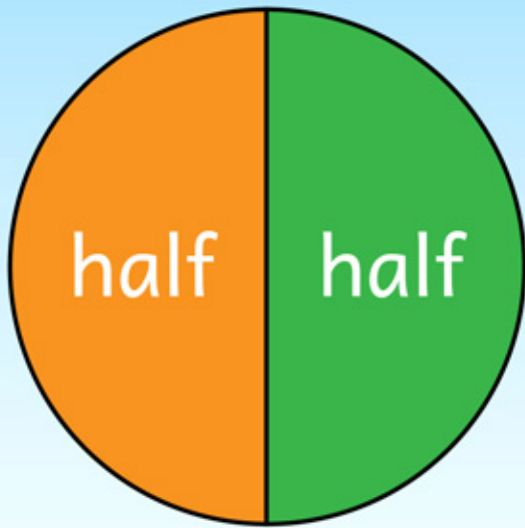
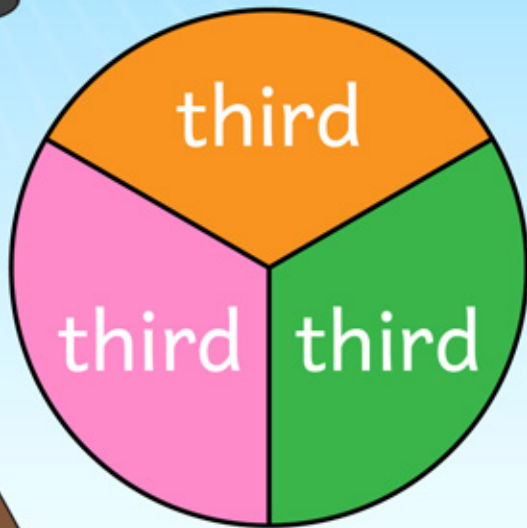




“Right! We each get a third of the fish, because anything divided into three parts is called a **third**.



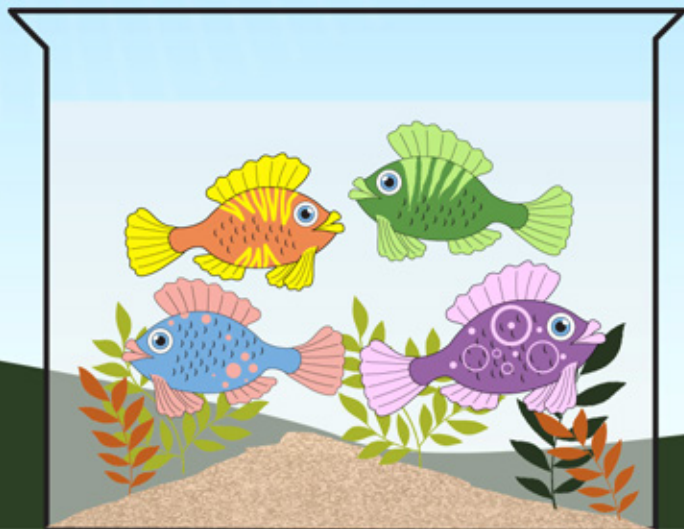
Koba, now you're an expert on thirds and halves as well as fishing."



Koba and Baraka took their fish home.
All the way Koba dreamed of becoming
a fish billionaire!



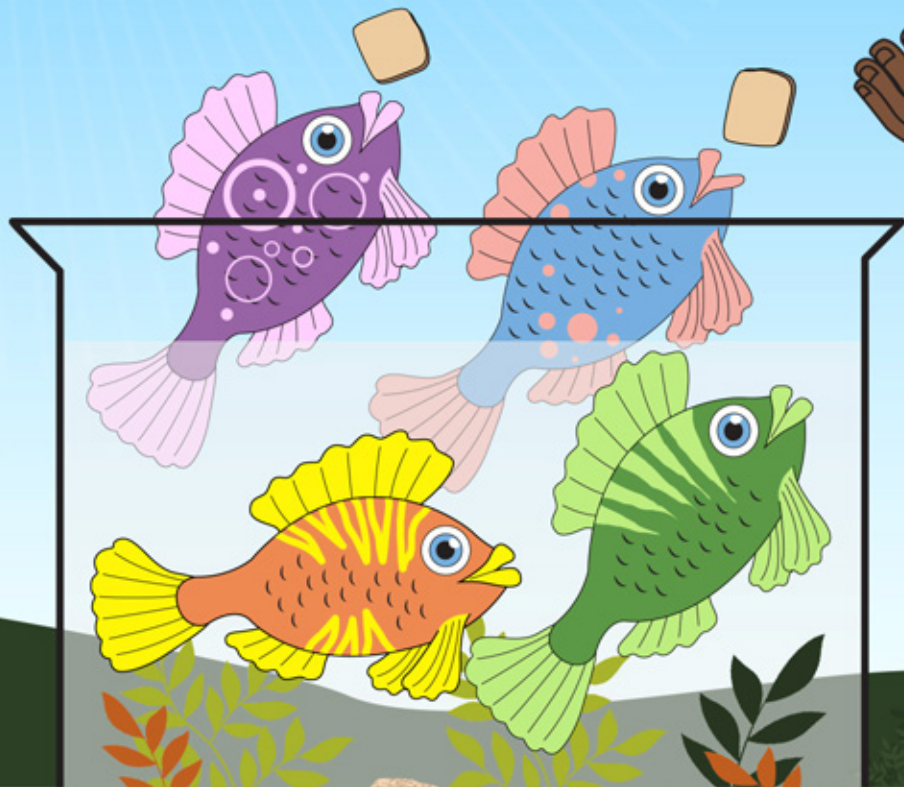
Next day, Koba was showing off his collection of fish to Kibena. He asked her to watch them while he went to find food to feed them.



He came back
with a piece of bread.



He broke off pieces and threw them to the fish. Each fish got one piece.



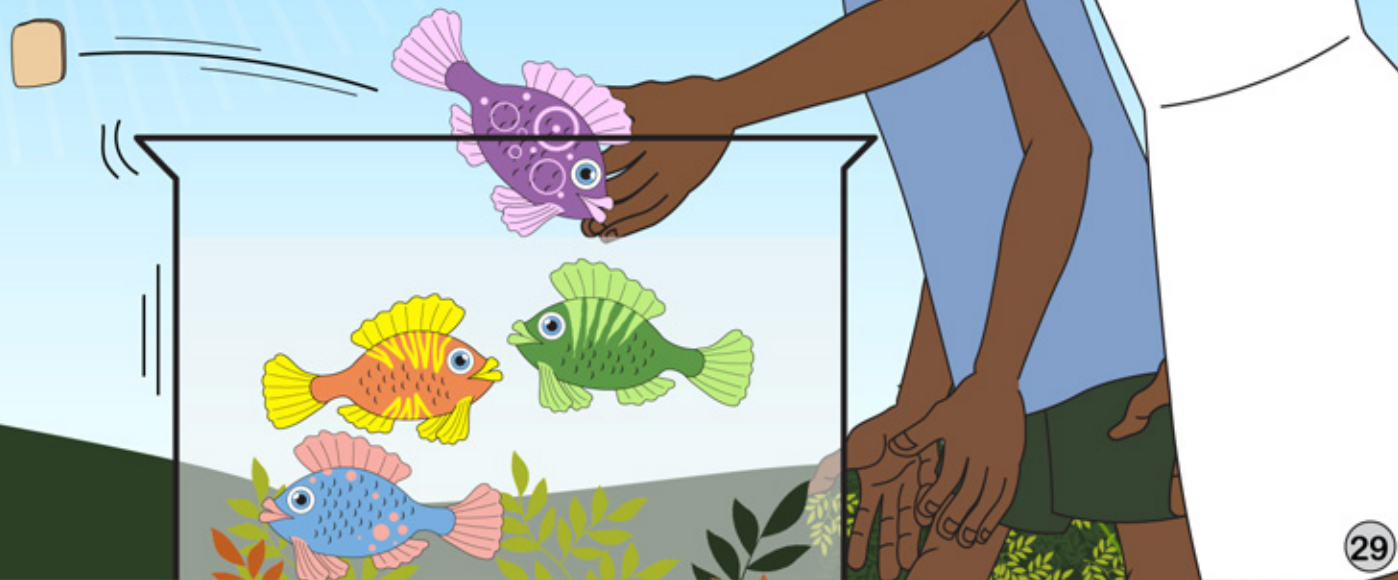
He still had one piece left
and was about to throw it
to the fish. Kibena warned
him not to give the last piece,
as the fish would fight over it.



He didn't listen and threw it in anyway.
The fish fought over it, almost tipping the tank over.



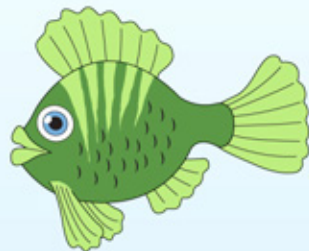
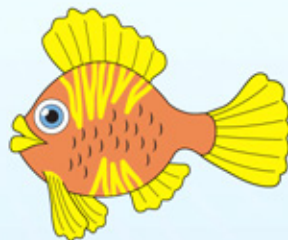
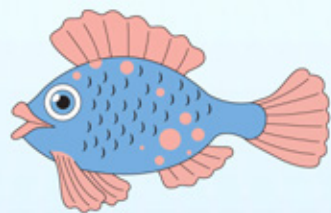
Kibena shook the tank to break up the fight.
The piece of bread got loose and flew into the air.



Kibena told Koba, “You should have cut the bread into four equal pieces like this.”



Your four fish would have gotten equal amounts.



Each piece of bread is a quarter.



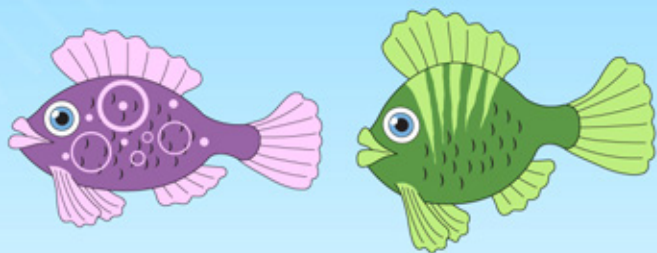


It is one out of four pieces,
or one fourth, or a quarter.

Each fish gets one quarter.”

$$\frac{1}{4} = \frac{1}{4} = \text{quarter}$$
A diagram illustrating the fraction 1/4. It shows a horizontal line with a single orange square above it and four orange squares below it, arranged in a 2x2 grid.

“Good thinking, Kibena! So if I only have two fish, I would cut the bread into two pieces.

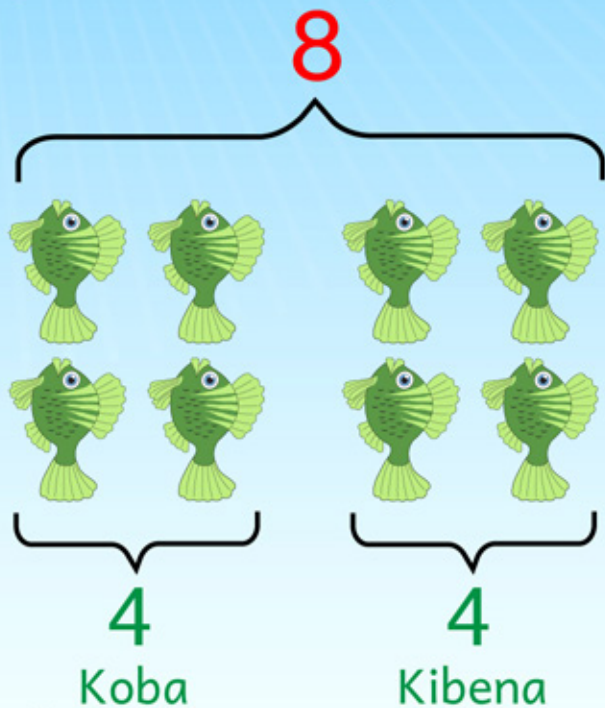


That would be one over two, which is a half.

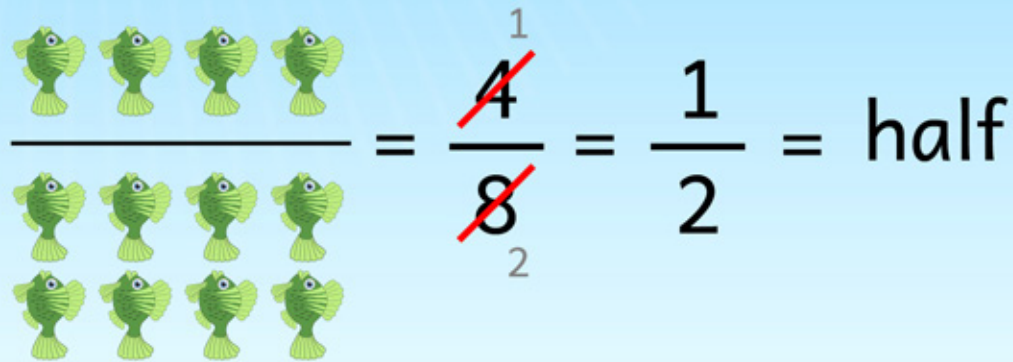


$$\frac{\text{one cookie}}{\text{two cookies}} = \frac{1}{2} = \text{half}$$

And If I had eight fish
and wanted to give
you half of my fish...

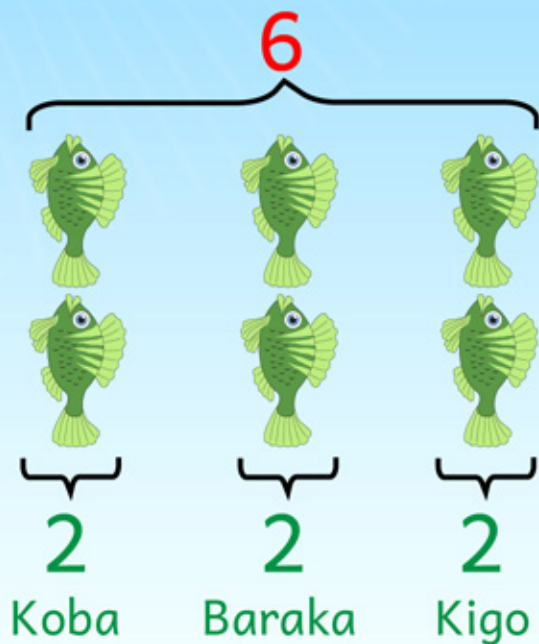


...You would get four out of eight,
which simplifies to one over
two which is a half.

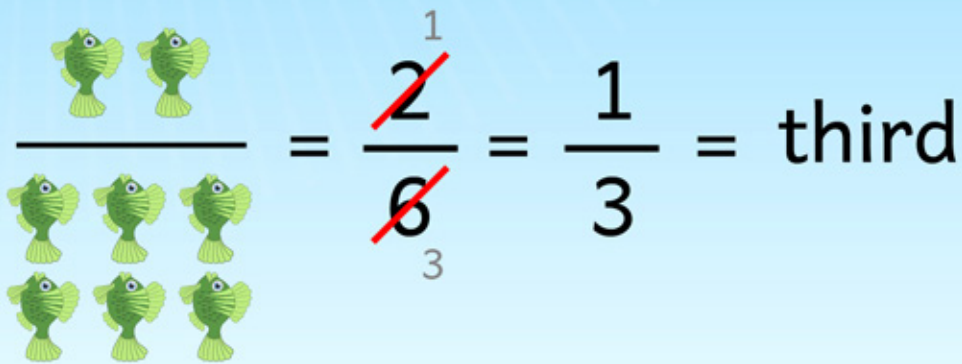

$$\frac{4}{8} = \frac{1}{2} = \text{half}$$



By the way I already know about thirds.
Yesterday we divided the fish we caught
between three people.



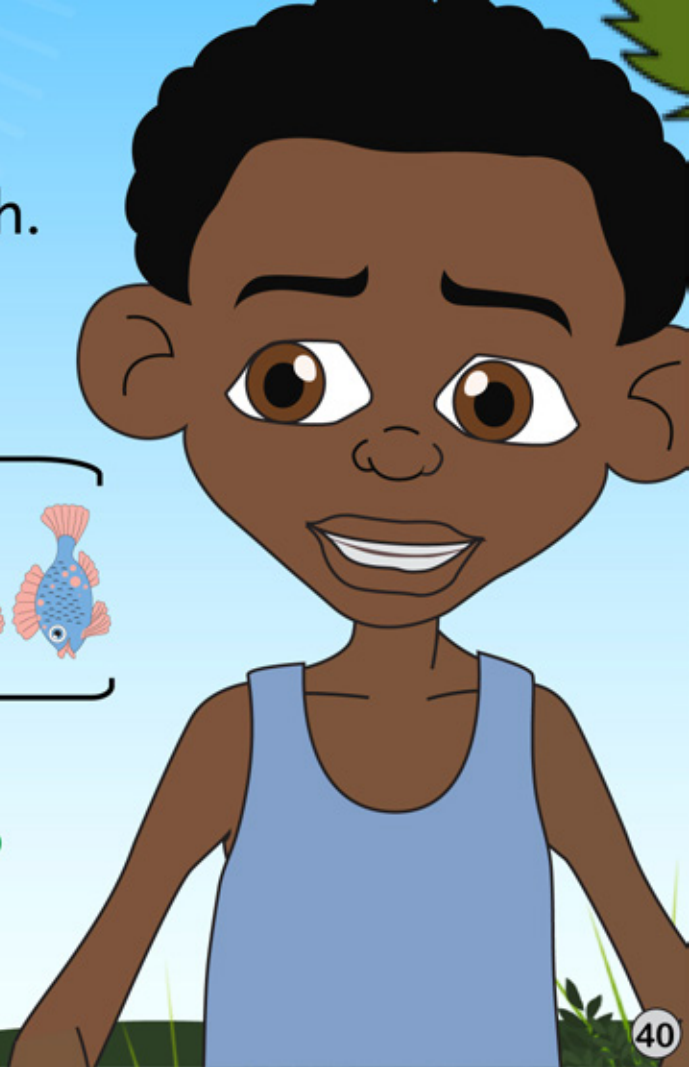
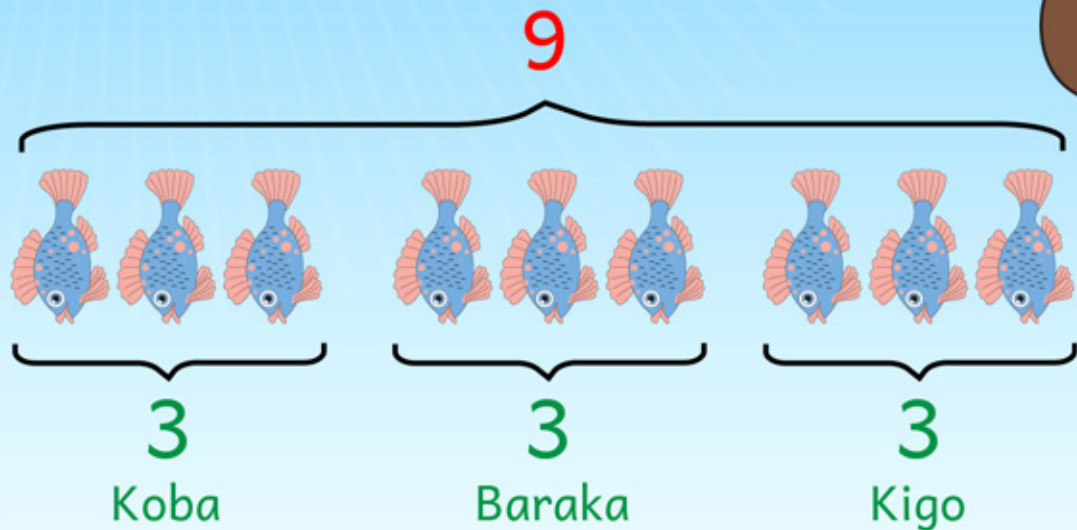
We each got two out of six fish,
or two sixths which **simplifies**
to one over three, or a third.



The diagram illustrates the simplification of a fraction using fish icons. The numerator is 2 (two fish) and the denominator is 6 (six fish). A horizontal line separates the two rows of fish. The fraction is shown as $\frac{2}{6} = \frac{\cancel{2}^1}{\cancel{6}_3} = \frac{1}{3} = \text{third}$. Red diagonal lines cross out the 2 in the numerator and the 6 in the denominator, with a small '1' above the 2 and a '3' below the 6.



If we had caught nine fish,
we would have gotten three each.



Three ninths **simplifies** to one over three, which is a third.”

$$\frac{\text{3 fish}}{\text{9 fish}} = \frac{\overset{1}{\cancel{3}}}{\underset{3}{\cancel{9}}} = \frac{1}{3} = \text{third}$$



All of a sudden, the kids heard loud noises from the tank. The fish told them that the tank was too small. They really wanted to go back to the sea.

Too cramped!

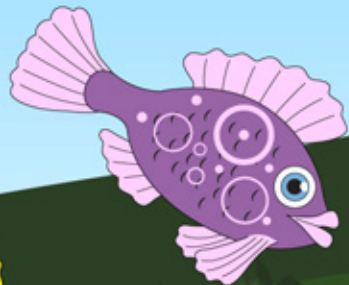
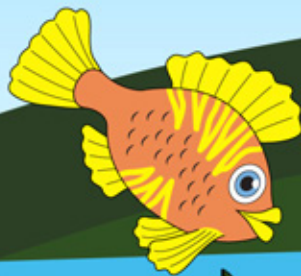
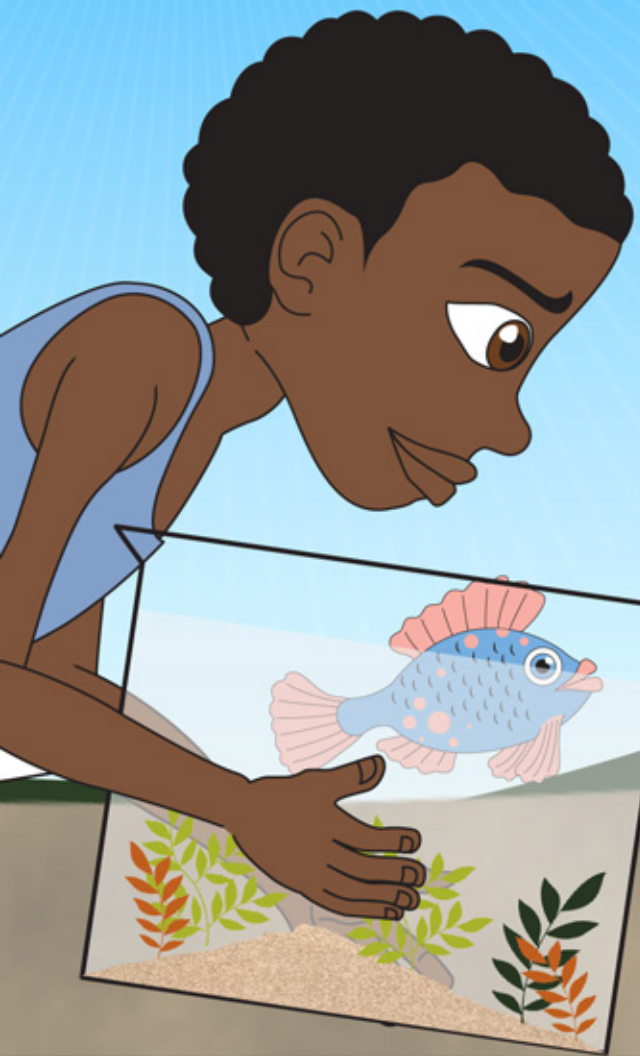
Let us out!

Get me out of here!

Koba and Kibena carefully
carried the tank to the shore.



One by one Koba put the fish back into the sea. He was a little sad that he would not become a fish billionaire!





The End

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