White Rose Maths

Year 3 - Summer - Block 4

Mass & Capacity

Who do you agree with? Explain why.

Amir

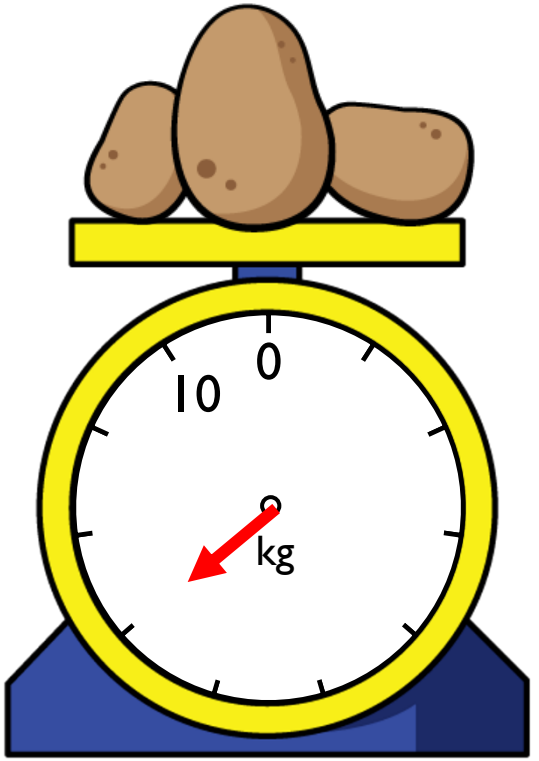
The potatoes weigh 13 kg

Jack

We don't know how much the potatoes weigh because the number is hidden.

Rosie

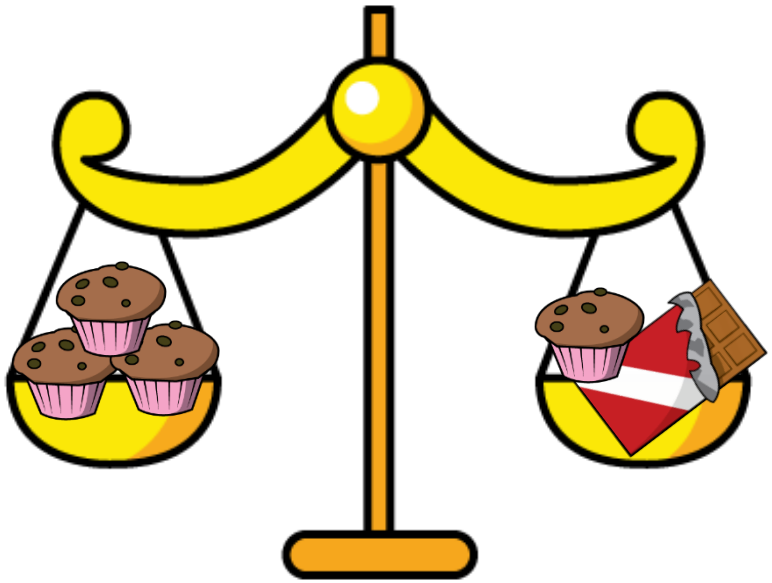
The potatoes weigh more than half of 10 kg



Can you calculate the weight of the potatoes? Explain how you did it.

The chocolate bar weighs 100 g.

How much does one muffin weigh?



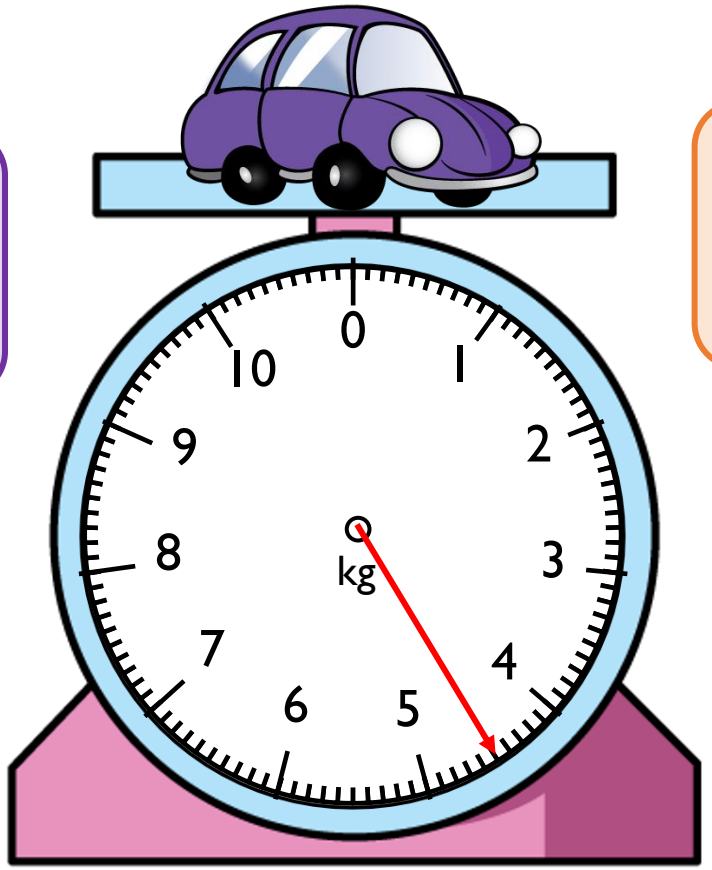
How much does each side weigh?

Using only 3 objects and a weighing scale, try to get as close to 2 kg as possible.

Explain why you chose those objects.

Work out how much more or how much less is needed to make it 2 kg.

Tommy is weighing a toy car.
Use this to work out what the other children's cars weigh.



My car weighs 1 kg more than Mo's.

Alex

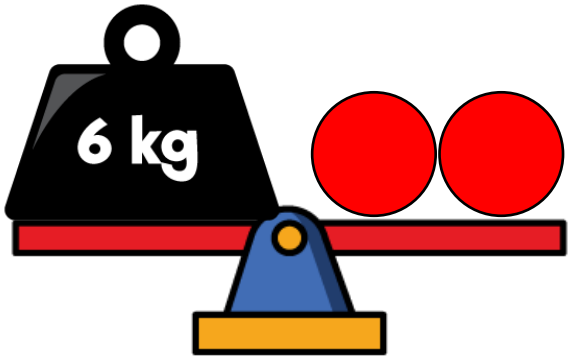
My car weighs 200 g less than Tommy's.

Mo

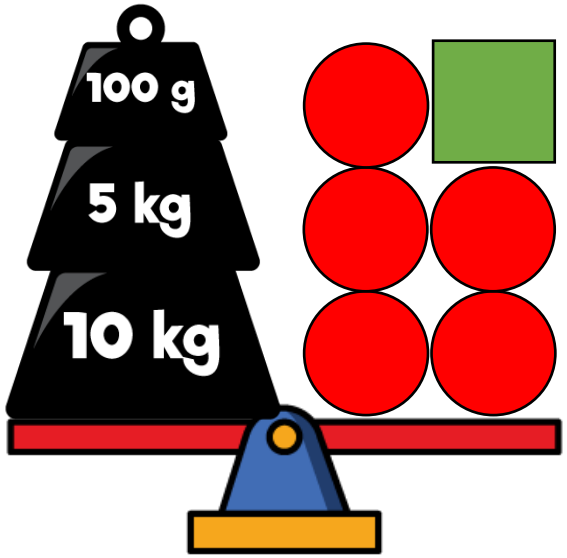
Dexter

My car weighs 1 kg and 300 g less than Alex's.

Here is a balance.



Here is another.

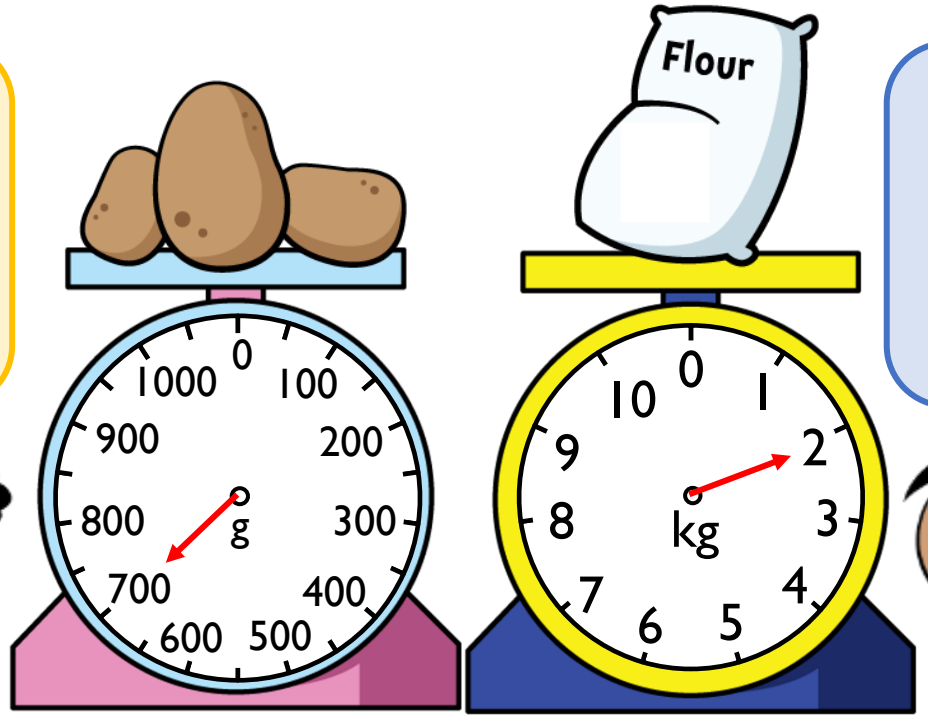


Work out the value of 

Can you create your own version for a partner?

Three children are weighing potatoes and flour.

The flour weighs more because 2 kg is more than 700 g.



The flour weighs less because 2 is less than 700

The potatoes weigh more because the arrow is further than the arrow on the flour scale.

Who do you agree with? Explain your answer.

Here are three masses.

20 kg and 600 g	18 kg and 500 g	20 kg

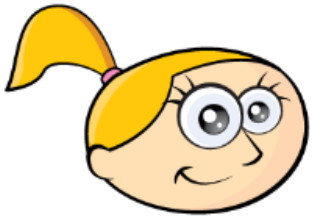
Match each mass to the correct child.

Dora

My mass weighs more than $\frac{1}{2}$ of 40 kg.

My mass is more than Eva's mass.

Mo



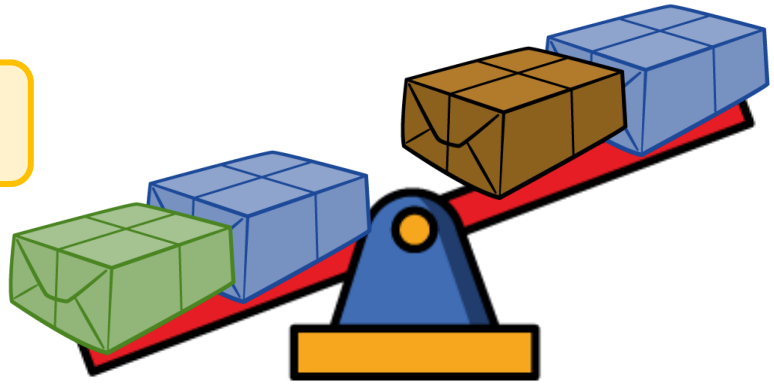
Eva

My mass weighs more than 18 kg but less than 20 kg.

The green parcel weighs 5 kg.
Can you work out what the blue and brown parcel weigh?

7 kg and 250 g

9 kg and 400 g



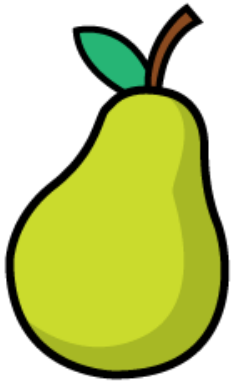
How much would the green and brown parcel weigh altogether?

Dora buys two peaches and three pears.

One peach weighs 75 g.

Three pears weigh the same as two peaches.

How much does one pear weigh?



Use a variety of containers.

Can you estimate how much liquid they hold?

Check your estimates using measuring jugs and cylinders to see how accurate you were.

Use the clues to work out who has which container.

I have exactly half a litre

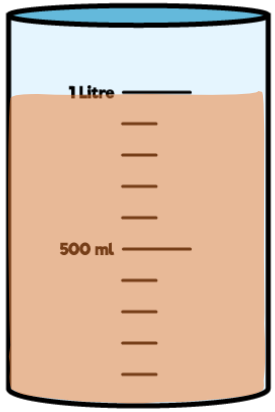
Annie

Ron

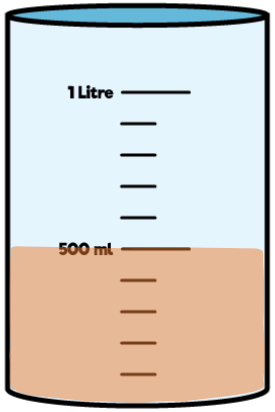
I have 1,000 ml

I have more than 300 ml but less than 400 ml

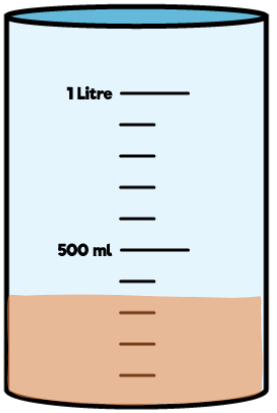
Eva



A

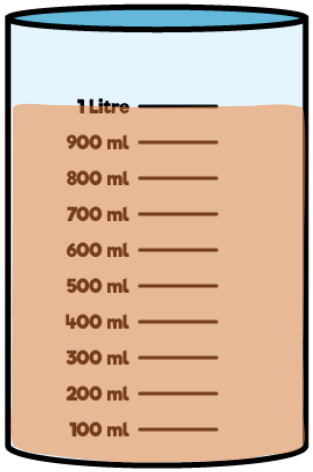


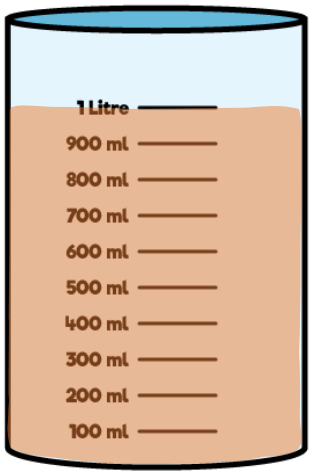
B

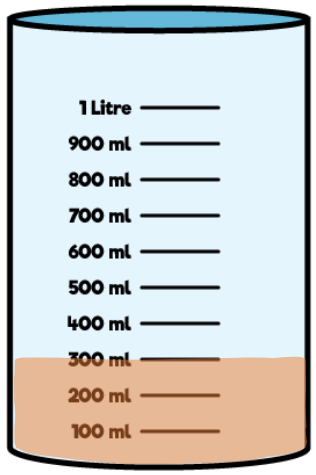


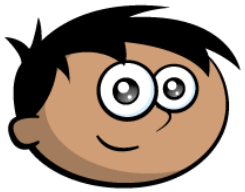
C

Amir and Alex work out the capacity of the pot by filling it with water, then pouring the water into the measuring cylinders.









Amir

The capacity of the pot is 302 ml

The capacity of the pot is 2 l and 300 ml.

Alex

Who do you agree with? Explain why.

True or False?

The tallest container has the largest capacity.

Use containers to decide whether the statement is true or false.

Record the capacity of the different containers in a table.

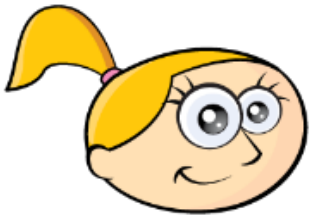
Rosie has a litre bottle of water.

She pours a drink for herself and two friends.
Their glasses can hold up to 250 ml.

Teddy has more than Amir.
Rosie has the most.

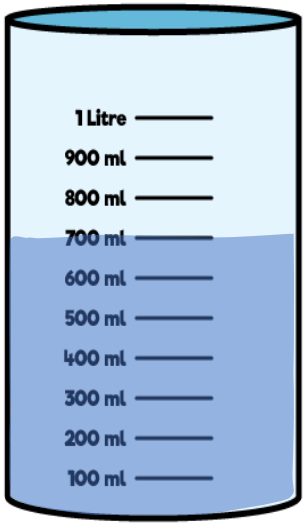
How much could each child have in their glass?

How much would be left in the bottle?

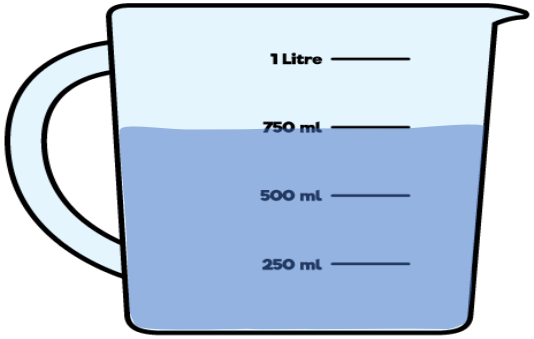


I know container 1 has more than container 2 in it because the water goes further up the side.

Eva



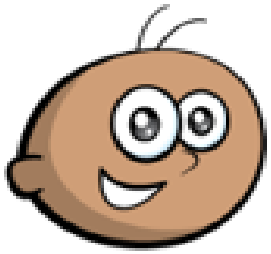
Container 1



Container 2

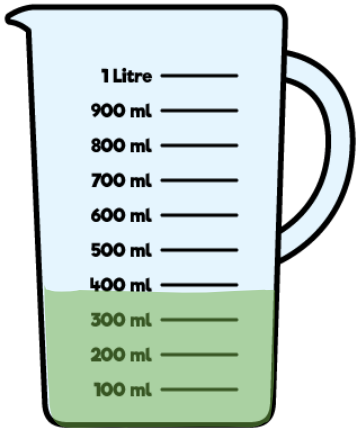
Is Eva correct? Explain your answer.

Tommy is pouring drinks using these jugs.
A drink is 125 ml.

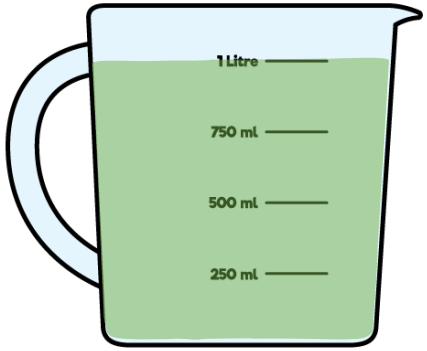


Tommy

If I pour three more drinks using jug 2, both jugs will have the same amount of juice in.



Jug 1



Jug 2

Is Tommy correct?

If not, how much juice will be left in jug 2?

Here are some measuring cylinders.
The total liquid in all three cylinders is 400 ml.

Cylinder A has half of the total amount in it. Cylinder B has 67 ml less than Cylinder A.

How much liquid does each cylinder contain?