

Day 68

Mass and Capacity

Key Vocabulary

mass

gram

kilogram

capacity

volume

millilitre

litre

lighter

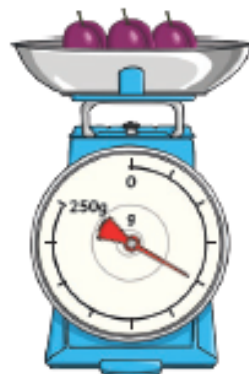
heavier

Measure and Compare Mass

Scales can be used to measure grams.

A gram is a unit of measurement that is used to measure the mass of something.

Grams can be written as g.



Scales can be used to measure kilograms.

A kilogram is a unit of measurement that is greater than a gram. It is also used to measure the mass of something.

Kilograms can be written as kg.



$1000g = 1kg$

To compare mass, we can use the words 'heavier' and 'lighter'.

Measure and Compare Capacity

Capacity is the amount of liquid a container can hold.

Volume is how much liquid is in the container.

Measuring cylinders can be used to measure smaller volumes.

Smaller volumes are measured in millilitres.

Millilitres can be written as ml.



Measuring jugs can be used to measure larger volumes.

Greater volumes are measured in litres.

Litres can be written as l.

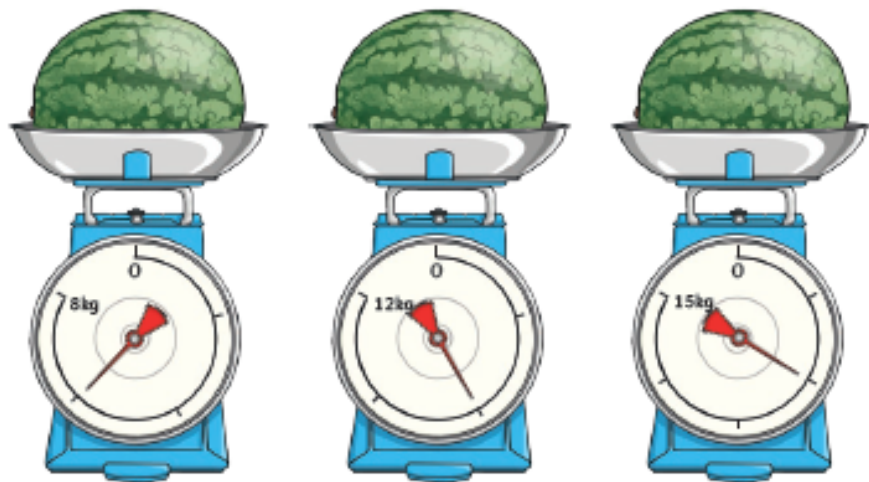
$1000ml = 1l$



To compare capacities, we can use the word 'full'.

Mass

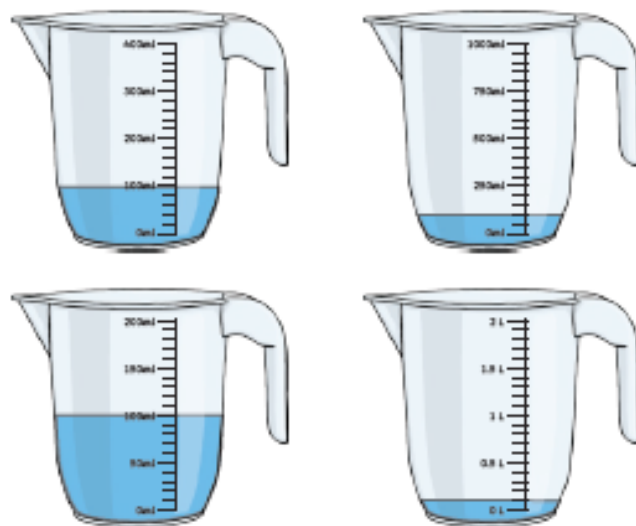
Each of the melons has a mass of 6kg but the arrows are all pointing at different points on the scales. This is because each of the measuring scales have different increments marked on them.



Always look carefully at how the numbers on the scales increase when reading a measurement.

Capacity

Measuring containers all have different capacities.

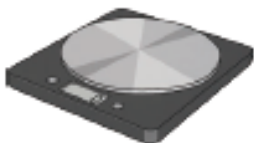


Each of these containers contain the same volume of 100 millilitres but have different capacities and scales. Always look carefully at how the numbers on the scales increase when reading a measurement.

Add and Subtract Mass

$$600\text{g} + 500\text{g} = 1100\text{g} = \mathbf{1\text{kg } 100\text{g}}$$

$$1\text{kg} - 300\text{g} = 1000\text{g} - 300\text{g} = \mathbf{700\text{g}}$$



Add and Subtract Capacities

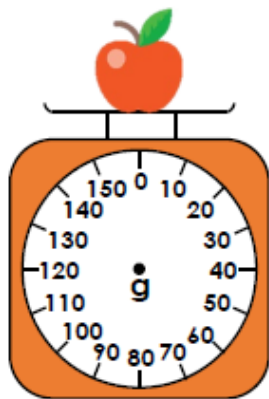
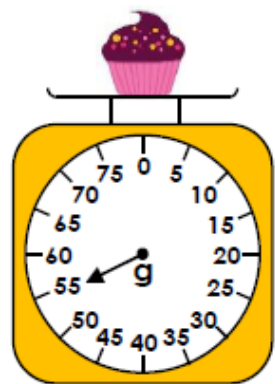
$$800\text{ml} + 400\text{ml} = 1200\text{ml} = \mathbf{1\text{l } 200\text{ml}}$$

$$1\text{l } 300\text{ml} - 200\text{ml} = \mathbf{1\text{l } 100\text{ml}}$$



Measure Mass 1

1a. If two cupcakes weigh the same as one apple, draw an arrow on the scale to show the weight of the apple.

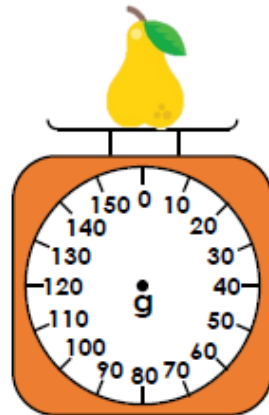
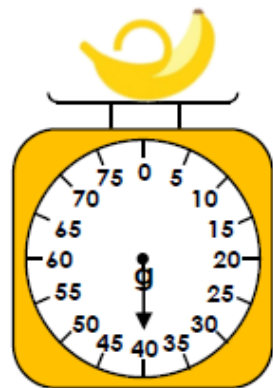


PS

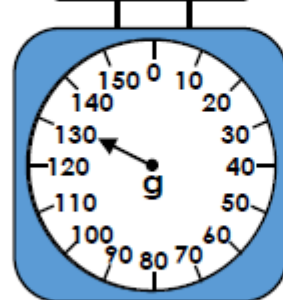
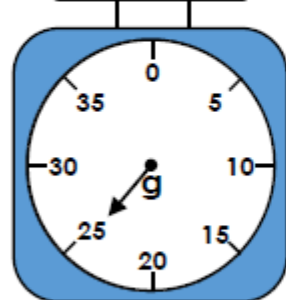


Measure Mass 1

1b. If two bananas weigh the same as one pear, draw an arrow on the scale to show the weight of the pear.



2a. Matt is making a pie. He needs 30g of butter and 150g of chicken.

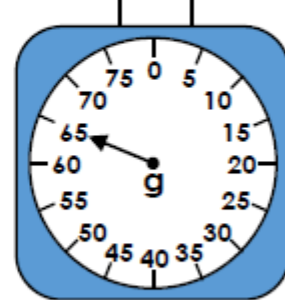
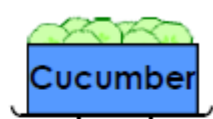
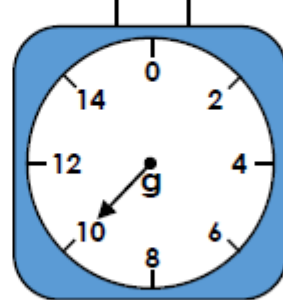


How much more of each ingredient does he need?



PS

2b. Tegan is making a salad. She needs 20g of lettuce and 70g of cucumber.

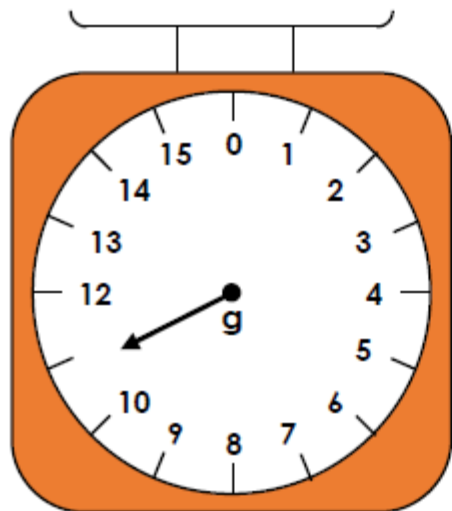


How much more of each ingredient does she need?



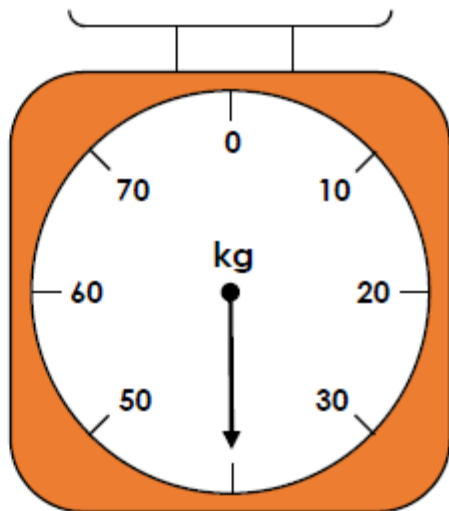
PS

1a. What mass is the arrow showing on this scale?



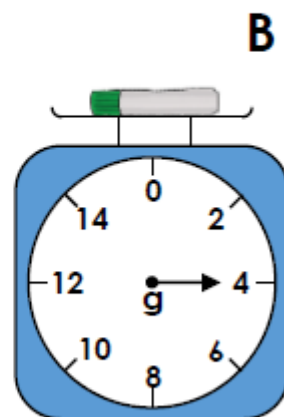
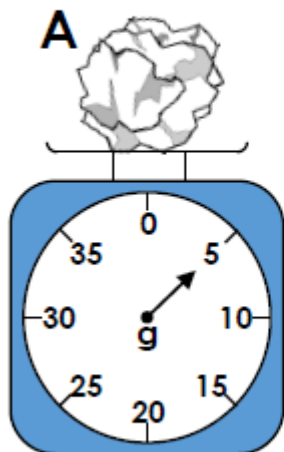
VF

1b. What mass is the arrow showing on this scale?



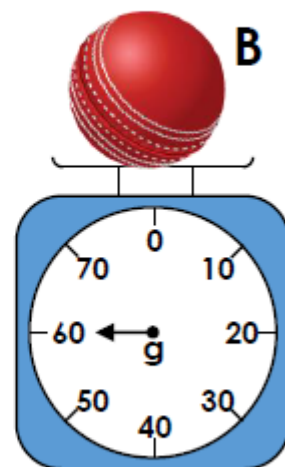
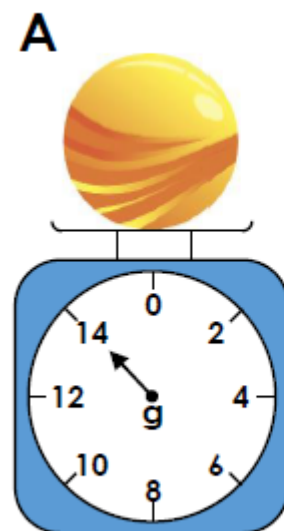
VF

2a. Which object is the heaviest?



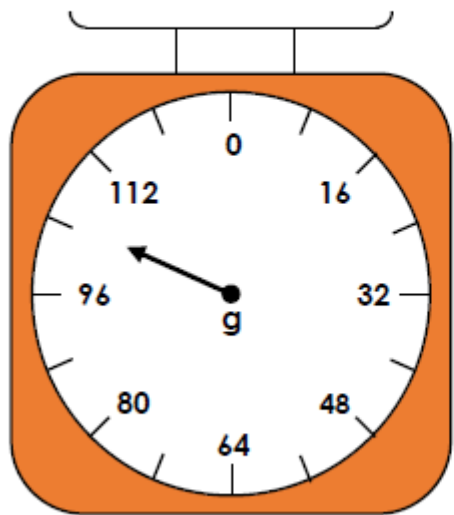
VF

2b. Which object is the lightest?

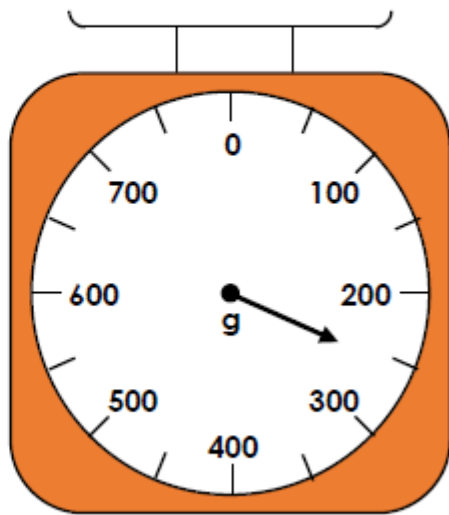


VF

4a. What mass is the arrow showing on this scale?



4b. What mass is the arrow showing on this scale?

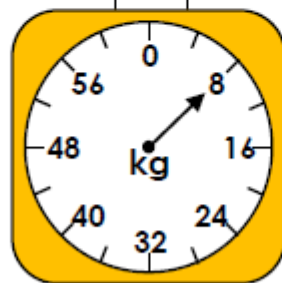
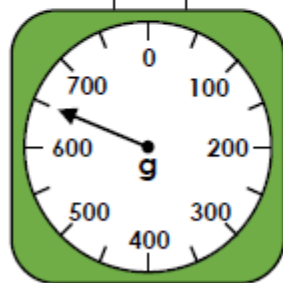


VF



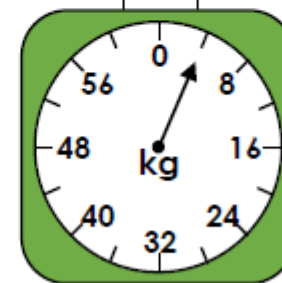
VF

6a. How much does each object weigh?



VF

6b. How much does each object weigh?



VF

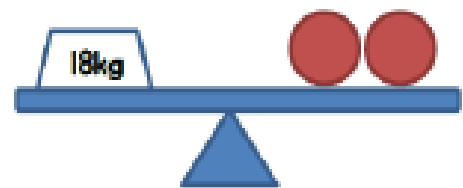
What's the pattern?

- $2\text{kg} - \square + 250\text{g} = 1\text{kg}$
- $3\text{kg} - \square + 1.25\text{kg} = 1\text{kg}$
- $4\text{kg} - \square + 2.25\text{kg} = 1\text{kg}$

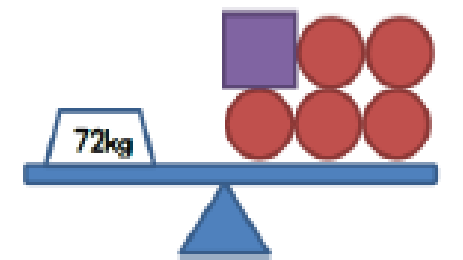
What's the rule?

There is 480ml in a container.
How much needs to be added to make 1l?
How much needs to be added to make 2l?
How much needs to be added to make 10l?

- Here is a balance.



Here is another balance.



Work out the value of

