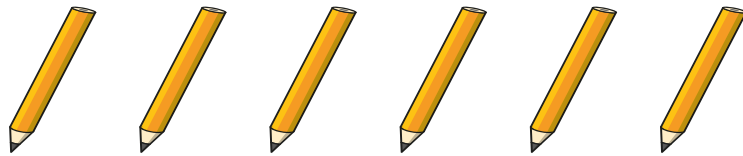


Find a half (2)



- 1** a) Circle half of the pencils.

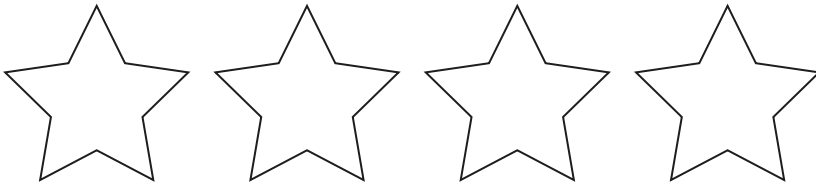


- b) Complete the sentence.

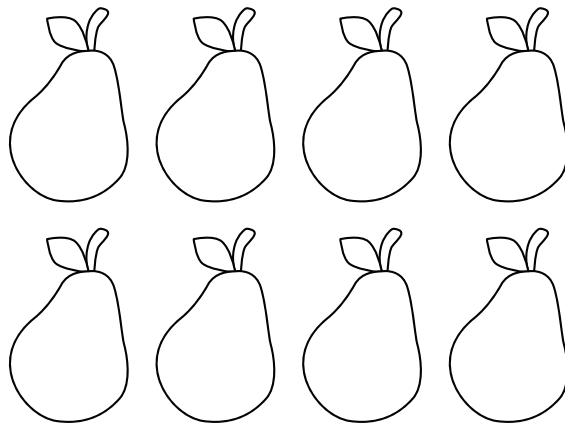
Half of 6 is

- 2** Colour half of each group.

a)



b)



Did you do it the same way as your partner?

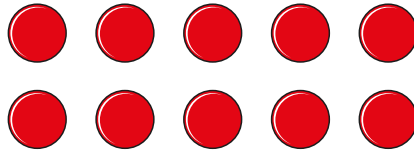




3 How many counters are there in each group?

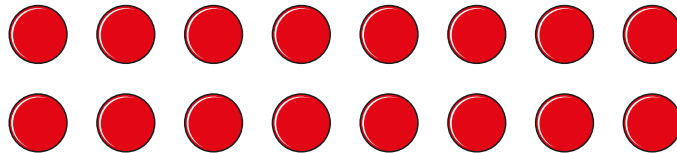
Find half of each group.

a)



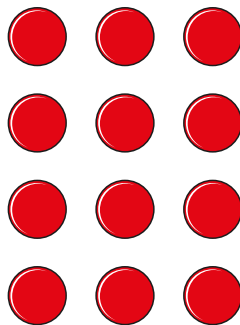
Half of is

b)



Half of is

c)



is half of

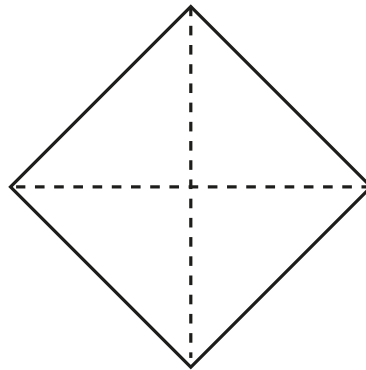
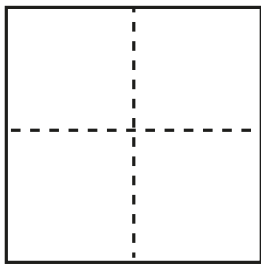
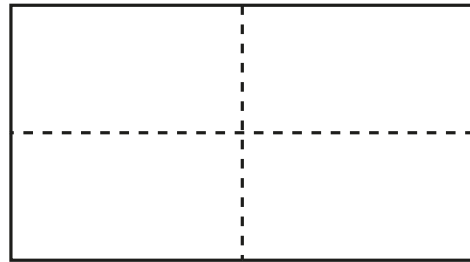
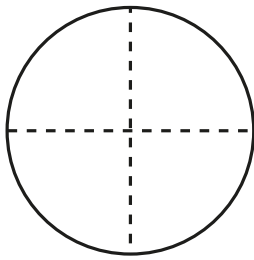
4 Complete the sentence.

7 is half of

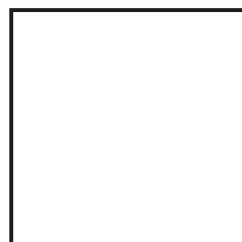
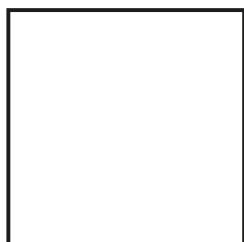
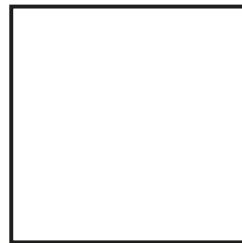
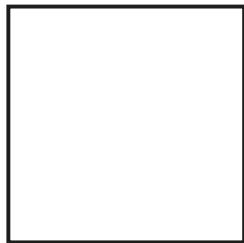
Find a quarter (1)



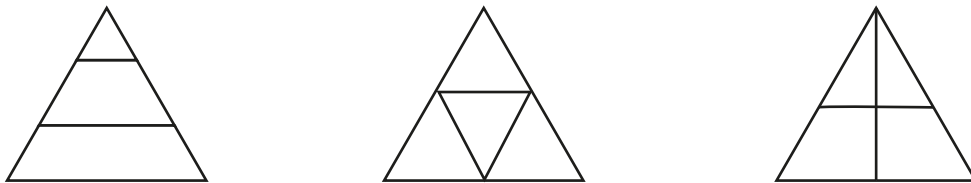
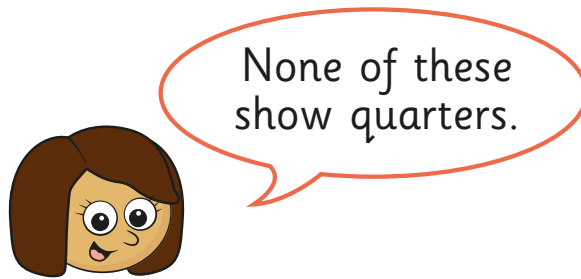
1 Colour a quarter of each shape.



2 Show a quarter in four different ways.



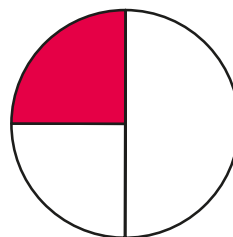
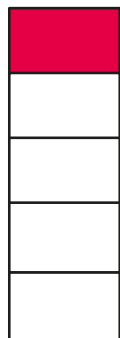
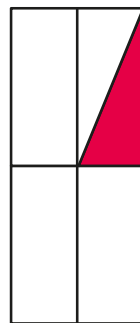
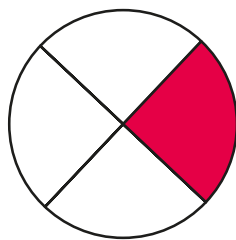
- 3 Kim wants to show a quarter.



Do you agree with Kim? _____

Talk about your answer.

- 4 Tick the shapes that show one quarter.

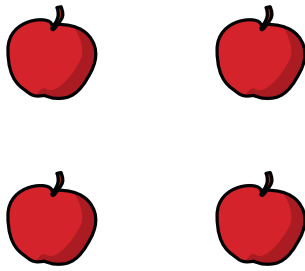


Find a quarter (2)



I Circle a quarter of each group.

a)



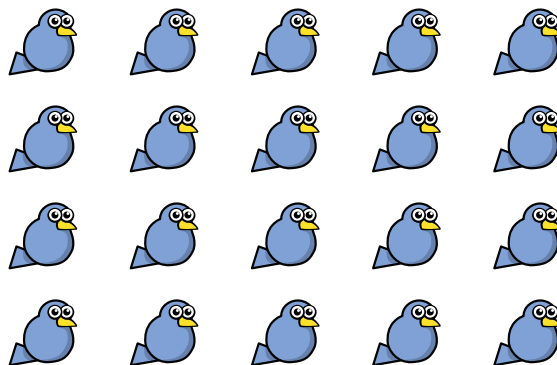
A quarter of 4 is

b)



A quarter of 12 is

c)



A quarter of 20 is



2 Complete the sentences.

a) Half of 12 is

A quarter of 12 is

b) Half of 16 is

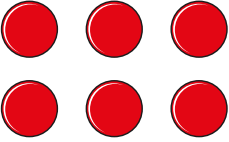
A quarter of 16 is

c) Half of 8 is

A quarter of 8 is

What do you notice?

3 A quarter is 6

			
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What is the whole?

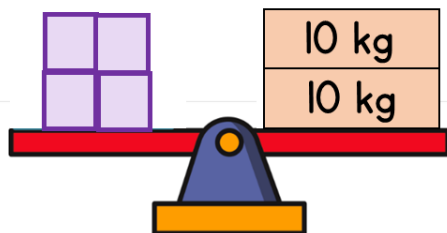
The whole is

Problem Solving



Your turn

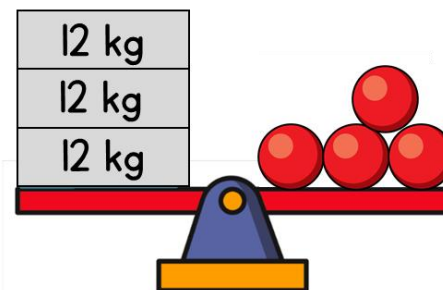
1 The scales are balanced.




Each  block has the same mass.

What is the mass of one of the blocks?

2 The scales are balanced.



Each  sphere has the same mass.

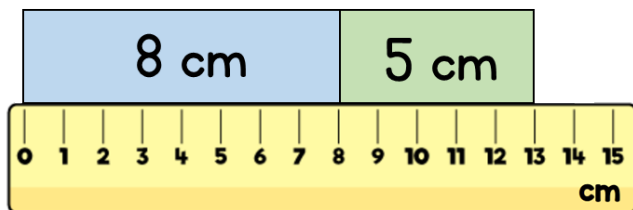
What is the mass of one of the spheres?

Problem Solving



Your turn

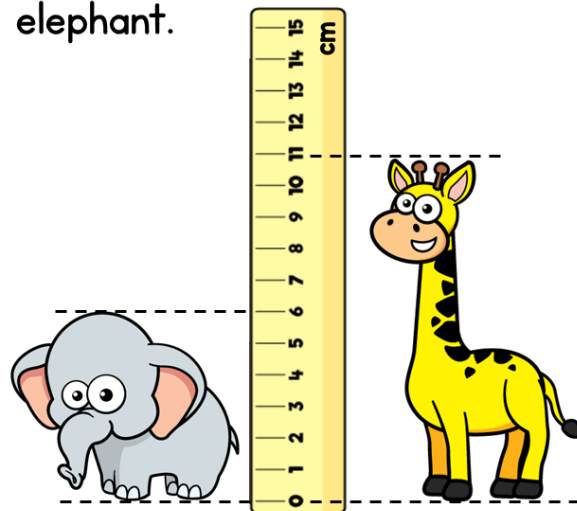
- 3 Two strips of paper are placed end to end.



How much longer is the blue strip than the green strip?

4

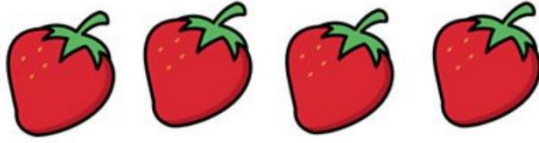
Here is a toy giraffe and a toy elephant.



How much shorter is the elephant than the giraffe?

Challenge 1

This is half of Lee's strawberries.



How many strawberries does Lee have?

This is half of Lee's shape.



What could the whole shape look like?

Challenge 2

Tim buys a lolly and a chew.



The lolly costs 12p more than the chew.

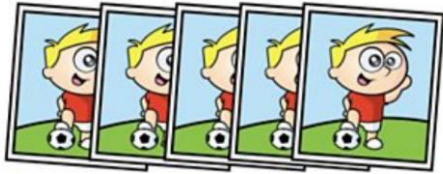
The total cost of the two items is 82p.

How much does the lolly cost?

Challenge 3

Stickers come in packs of 5.

Max buys 12 packs.



He gave his three friends some stickers.

They each receive the same number.

He has 27 stickers left.

How many stickers did Max give each of his friends?

Challenge 4

Here are 3 containers.



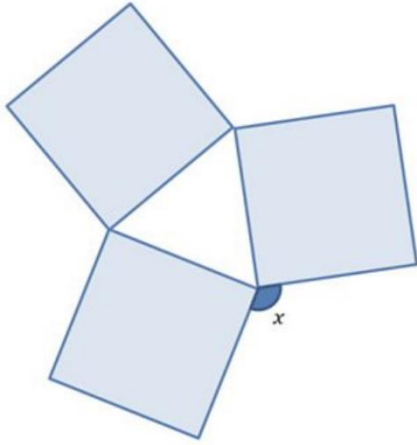
- The jug can hold **1500 ml**.
- The bucket can hold **2 litres**.
- The barrel can hold **15 litres**.

Anisa wants to fill the barrel with water.

Find 2 ways that Anisa can fill the barrel using the jug and bucket.

Challenge 5










Three identical squares are arranged to make this pattern.



What is the size of the angle marked x ?

Challenge 6

Here is a 3 x 3 grid with some shapes in.

			108
			102
			95

Each shape represents a number.

The sum of each row is shown at the right of the table.

Find the value of each of the shapes.

Challenge 7

Megan puts 4 fractions in order, starting with the smallest.

$$\frac{1}{2} \quad \frac{\text{blue circle}}{8} \quad \frac{7}{\text{blue circle}} \quad \frac{\text{blue circle}}{5}$$

She has spilt some paint on some parts of the fractions.

What could the missing numbers be?

Challenge 8

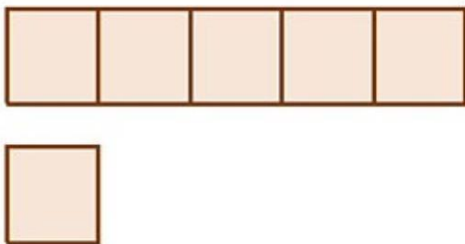
Connor has five times as much money as Jayden.

Connor gives some money to Jayden.

They now have £8.52 each.

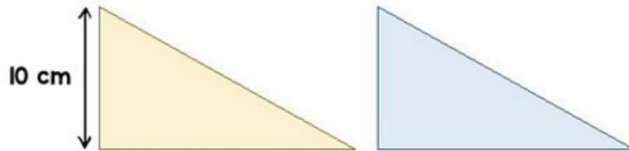
How much did Connor have at the start?

Hint: The diagram below may help you.

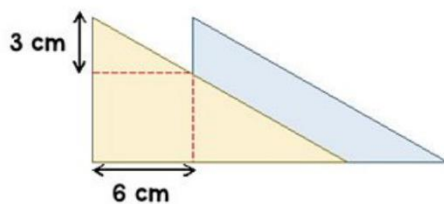


Challenge 9

Here are two triangles identical in size.



The two triangles are overlapped.



What is the area of the blue triangle showing?

Challenge 10

80 people take part in a race.

- The ratio of children to adults in the race is **2:3**.
- The mean time for the adults is **2 minutes 15 seconds**.
- The mean time for all 80 people is **3 minutes**.

Find the mean time for the children.

As a rough guide of difficulty level:

- **Challenge 1 and 2** are suitable for ages 5 to 7.
- **Challenge 3 to 6** are suitable for ages 7 to 11.
- **Challenge 7 to 10** are suitable for ages 11 to 15.

We want everyone to get involved with challenge day, so work together to solve as many as you can and share your solutions!

