

Q1. In a zoo, the adult polar bear weighs three times more than the baby elephant.



By Dave Pape (Own work) [Public domain],
Wikimedia Commons

polar bear



By Daryona (Own work) via
[CC-BY-SA-3.0-2.5-2.0-1.0], via Wikimedia Commons

elephant

Together they weigh **700** kilograms.

How much does the polar bear weigh?



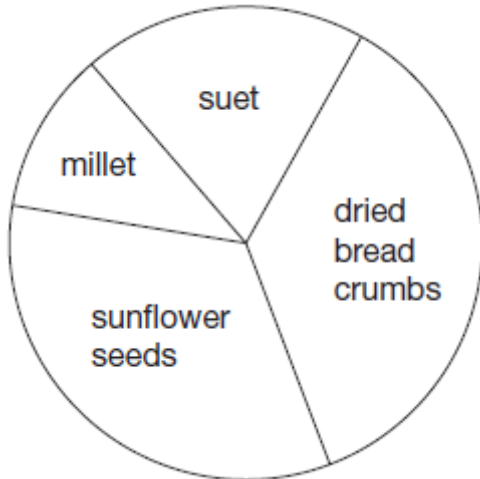
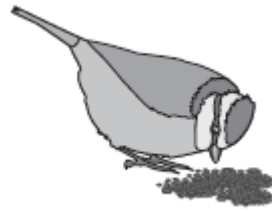
Show your method

kg

2 marks

Q2.

This pie chart shows the ingredients to make a food mixture for wild birds.




Estimate the **percentage** of mixture that is suet.

 %

1 mark

Mina uses 100 grams of millet in the mixture.

Estimate how many grams of sunflower seeds she should use.

 g

1 mark

Q3.

A gardener plants tulip bulbs in a flower bed.

She plants 3 red bulbs for every 4 white bulbs.

She plants 60 red bulbs.



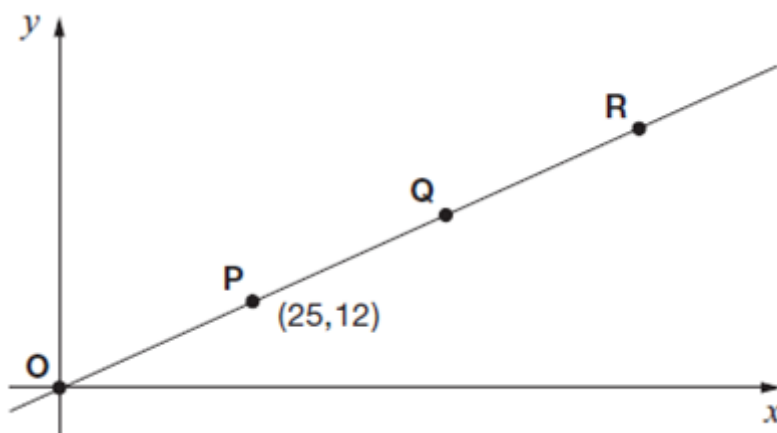
How many **white** bulbs does she plant?



Show your method

2 marks

Q4. Here is a line on coordinate axes.



Points **O**, **P**, **Q** and **R** are equally spaced.

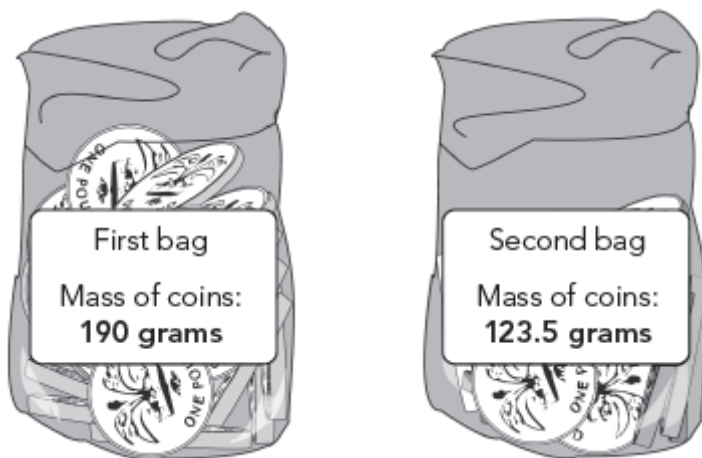
The coordinates of **P** are (25,12).

What are the coordinates of R?

R = (,)

1 mark

Q5. Here are two plastic bags of £1 coins.



The **first** bag contains **20** £1 coins.

How many £1 coins does the **second** bag contain?



Show your method

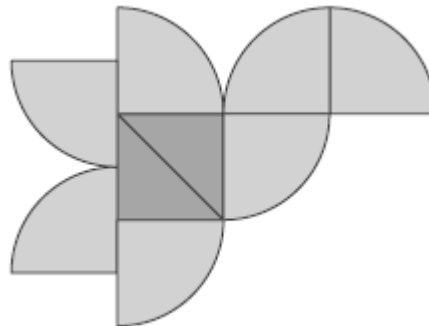
2 marks

Q6.

Joe has some triangular tiles and some quarter-circle tiles.



He uses 2 triangles and 7 quarter-circles to make this 'flying bird' design.



Joe makes some more of these 'flying bird' designs.

He uses 56 quarter-circles.

How many **triangles** does he use?

 Show your **method**. You may get a mark.

2 marks

Q7. A 5p coin has a diameter of 1.8 centimetres.



Holly makes a straight line of 5p coins worth £10

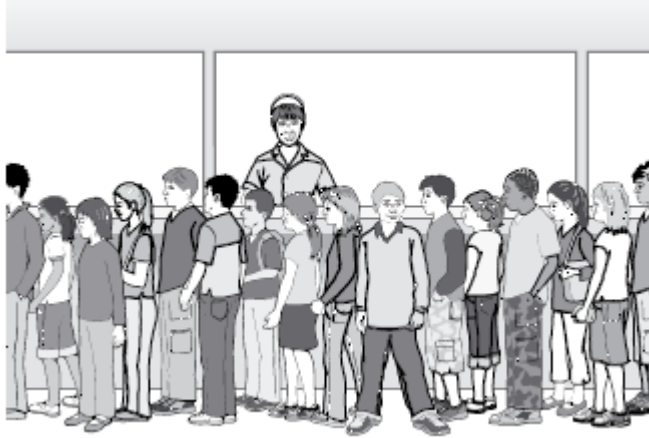


How long is Holly's line?
Give your answer in **metres**.

 Show your **method**. You may get a mark.

m

2 marks



Q8.

There are 25 children in the lunch queue, including Nik.

Nik says,

'There are twice as many children in front of me as there are behind me'.

How many children are **in front** of Nik?

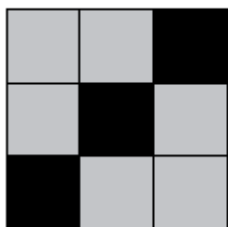


Show your working

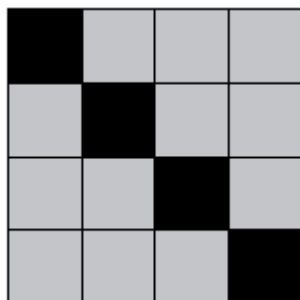
children

2 marks

Q9. These patterns are drawn on square grids.




Pattern A



Pattern B

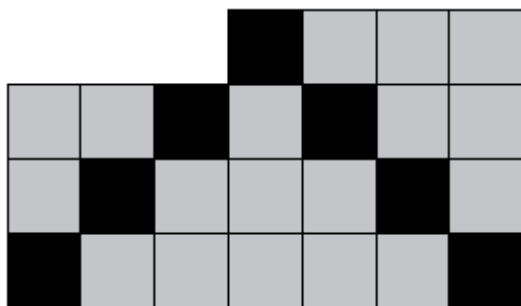
In pattern A, the **ratio** of black squares to grey squares is **1 : 2**

What is the ratio of black squares to grey squares in pattern B?

 1 :
--

1 mark

Now look at this new pattern.



What **percentage** of the new pattern is **black**?

		%
---	--	---

1 mark

Q10. Here is a recipe for fruit smoothies.

<p style="text-align: center;">Recipe</p> <p>10 strawberries $\frac{1}{2}$ litre of orange juice 250ml yogurt 1 banana</p> <p><i>Makes two smoothies</i></p>
--



Stefan uses the recipe to make smoothies.
He uses 1 litre of yogurt.

How many strawberries does he use?



1 mark

Amir uses the same recipe.

He wants to make 5 smoothies.
He has 1 litre of orange juice.

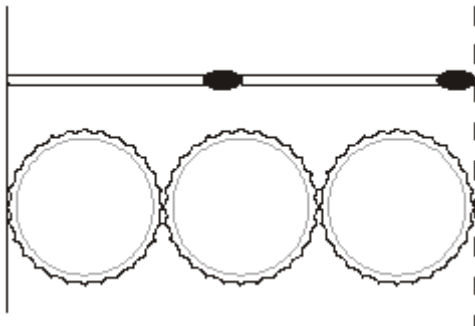
How many **more** millilitres of orange juice does he need?



Show your **method**.
You may get a mark.

2 marks

Q11. Two matchsticks have the same length as three bottle tops.



How many bottle tops will have the same length as 50 matchsticks?

Show your **working**.
You may get a mark.

2 marks

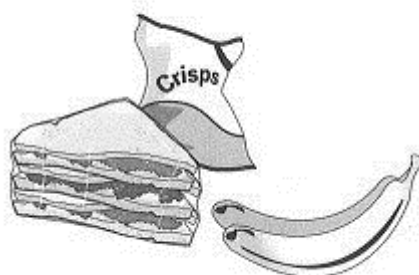
Q12. David and his friends prepare a picnic.

Each person at the picnic will get:

3 sandwiches

2 bananas

1 packet of crisps



The children pack **45** sandwiches.

How many **bananas** do they pack?



Show your **working**. You may get a mark

bananas

A large rectangular box for working out the answer. On the left side of the box, there is a speech bubble containing the text 'Show your working. You may get a mark'. An arrow points from the speech bubble towards the right side of the box. In the bottom right corner of the box, there is a smaller rectangular box containing the word 'bananas'. A small pencil icon is positioned at the top left corner of the main box.

2 marks

Q13.



Sapna makes a fruit salad using bananas, oranges and apples.

For every one banana, she uses 2 oranges and 3 apples.

Sapna uses 24 fruits.

How many **oranges** does she use?

Show your **working**.
You may get a mark

oranges

2 marks

Q14. Mari is the presenter of a weekly radio show.



She plays **five** new songs for every **two** old songs.

Last week she played 15 **new** songs.

How many songs did she play **altogether**?



Show your **working**.
You may get a mark



2 marks

Q15.



Every **100g** of brown bread contains **6g** of fibre.

A loaf of bread weighs 800g and has 20 equal slices.

How much fibre is there in **one** slice?



Show your **working**.
You may get a mark



2 marks

Q16.



30 children are going on a trip.

It costs **£5** including lunch.

Some children take their own packed lunch.

They pay only **£3**

The 30 children pay a total of **£110**

How many children are taking their own packed lunch?

 Show your **working**. You may get a mark 

2 marks

Q17.



Cheddar cheese costs £7.50 for 1kg.

Marie buys 200 grams of cheddar cheese.

How much does she pay?

1 mark

Cream cheese costs £3.60 for 1kg.

Robbie buys a pot of cream cheese for 90p.



How many grams of cream cheese does he buy?

A large rectangular box intended for the student's working. On the left side, there is a small pencil icon. Below it, a speech bubble contains the text: "Show your **working**. You may get a mark". An arrow points from the speech bubble towards the right side of the box. In the bottom right corner of the box, there is a smaller rectangular box containing the letter "g", indicating where the final answer should be written.

2 marks

Q18. Rectangle **ABCD** has a perimeter of **24 centimetres**.

Sides **AB** and **DC** are **twice as long** as sides **AD** and **BC**.



Not actual size

Calculate the length of side **AD**.

Do **not** use a ruler.

cm

1 mark

Q19. Here is a recipe for pasta sauce.

Pasta sauce

300g tomatoes

120g onions

75g mushrooms

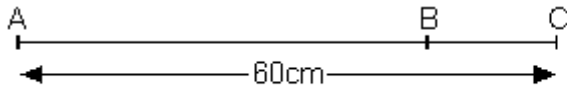
Josh makes the pasta sauce using **900g** of **tomatoes**.

What weight of **onions** should he use?

g

1 mark

Q20.



Not drawn to scale

The distance from **A to B** is three times as far as from **B to C**.

The distance from **A to C** is **60 centimetres**.

Calculate the distance from **A to B**.

A large rectangular box for showing working. In the top left corner, there is a small pencil icon. A speech bubble on the left side contains the text "Show your **working**. You may get a mark" with an arrow pointing into the box. In the bottom right corner of the box, there is a small rectangular box containing the text "cm".

2 marks

Q21. Here is a recipe for raspberry ice cream.


raspberry ice cream for 8 people
$\frac{1}{2}$ litre of cream
1kg raspberries
250g sugar



This recipe is for **8 people**.

Josie makes enough raspberry ice cream for **12 people**.

How much **cream** does she use?

 litre

1 mark

Fred makes raspberry ice cream in the same way.

He uses **2½ kg** of **raspberries**.

How much **sugar** does he use?

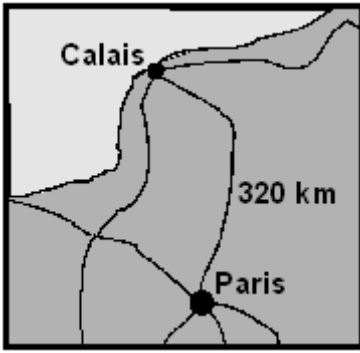


Show your **working**.
You may get a mark

g

2 marks

Q22. Here is a map of part of France.



The map shows that the distance from Calais to Paris is **320 kilometres**.

5 miles is approximately **8 kilometres**.

Use these facts to calculate the approximate distance in **miles** from Calais to Paris.

A large rectangular box for working. In the top left corner, there is a small pencil icon. On the left side, there is a speech bubble containing the text: "Show your **working**. You may get a mark". An arrow points from the speech bubble towards the right side of the box. In the bottom right corner of the box, there is a small rectangular box containing the word "miles".

2 marks

Samira bought this present in France.



44.85 FF

She paid **44.85 French Francs** for it.

9.75 French Francs equal **£1**

What was the cost of the present in **pounds and pence**?



Show your **working**.
You may get a mark

£

2 marks

Q23. Purple paint is made by mixing blue and red paint.



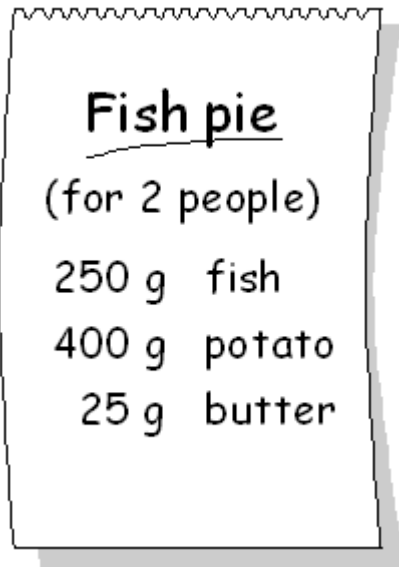
Use the picture to work out the missing numbers.

For **25 tins** of purple paint you need tins of blue paint

and tins of red paint.

1 mark

Q24. Here are the ingredients for fish pie for **two people**.



Fish pie
(for 2 people)
250 g fish
400 g potato
25 g butter

Omar makes fish pie for **3 people**.

How many **grams of fish** should he use?



Show your **working**. You may get a mark

g

2 marks

Q25. In a country dance there are **3 boys** and **2 girls** in every line.



42 boys take part in the dance.

How many girls take part?

Show your **working**.
You may get a mark

2 marks