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Year 6 SATs – Problem Solving Maths Questions

1. Zane has 5 blue jumpers, 3 green jumpers and 2 red jumpers.

   What fraction of his jumpers are **red**?

   1 mark

2. Christina is saving to buy a toy, which costs £19.99.
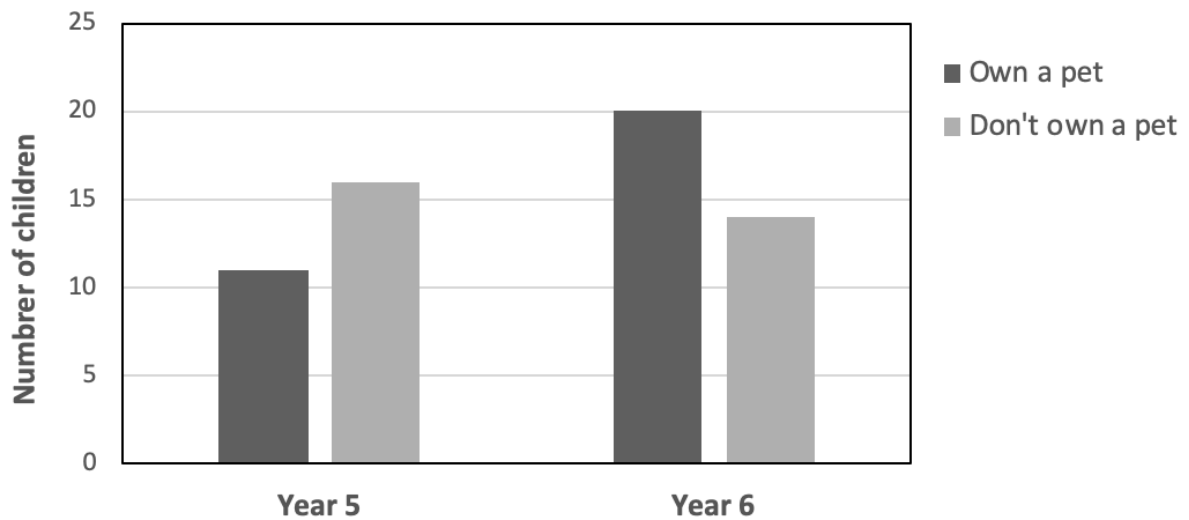
   She has already saved £8.61.

   How much more money does Christina need to save so that she can buy the toy?

   £ | |

   1 mark

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3. The bar chart below shows how many children in Year 5 and Year 6 own a pet.

Altogether, how many children don't own a pet?

1 mark

How many more Year 6 children than Year 5 children own a pet?

1 mark

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4. Amira runs 965 metres, then walks 550 metres. She then sprints for 150 metres.

How many metres does Amira cover in total?

m

5. A class has 30 children.

Two-fifths of the children come to school by bus and one-fifth of the children cycle. The rest of them walk to school.

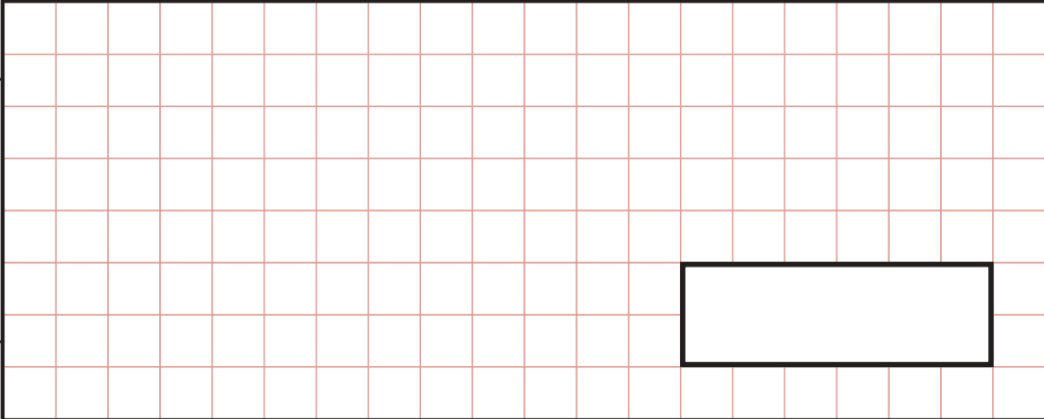How many children walk to school?

Show your method

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6. A box has 150 oranges in it.

   12 children eat 11 oranges each over the course of a week.

   How many oranges are left in the basket?

   Show your method

   2 marks

7. Three decimal numbers add together to equal 2.8.

   One of the numbers is 0.7, another one is 1.2.

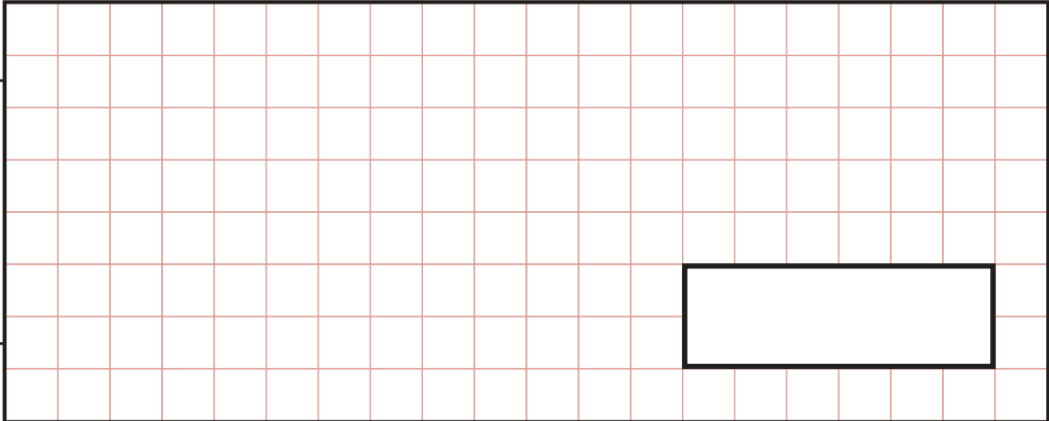   What is the third number?

   1 mark

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8. Tom raises £210 from a sponsored swim.

   Each person sponsored him £15.

   How many people sponsored him in total?

   Show your method

   _____
   2 marks

9. Circle the cheapest pair of trainers.

   15% off £90

   10% off £75

   _____
   2 marks

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10. Ahmed buys four bunches of flowers.

Each bunch of flowers costs the same.

He pays with a £20 note.

This is his change.

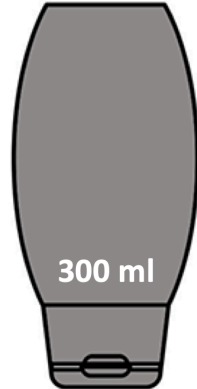What is the cost of **one** bunch of flowers?

Show your method

£

2 marks

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11. A container has 300ml of shampoo in it.

300 ml

Every day, Lucia uses 12ml of shampoo.

How many days does the container last?

Show your method

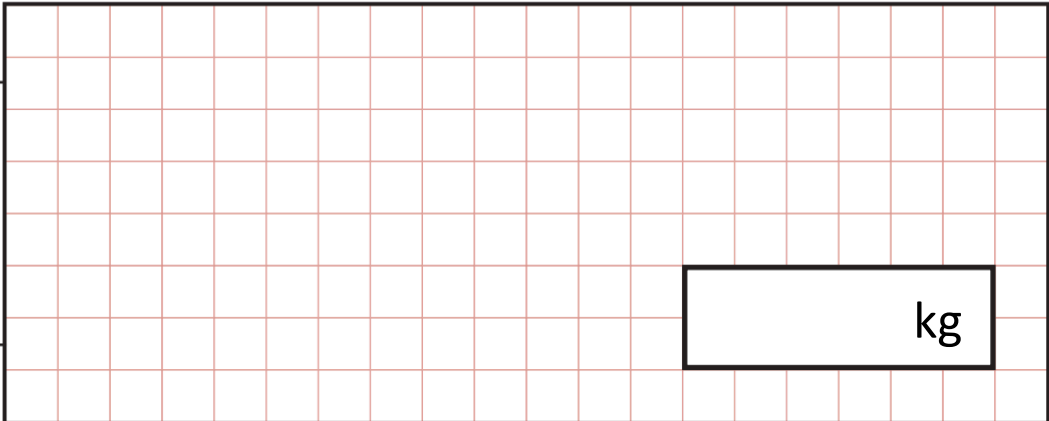2 marks

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12. Bruno and Samira both bake a loaf of bread.

   Bruno's loaf weighs 400g.

   Samira's loaf weighs 2 times more than Bruno's.

   What is the **total** weight of both loaves? Give your answer in kilograms.

   Show your method

   kg

_____
2 marks

13. This pictogram shows the number of sweets in a sweet jar.

   Number of sweets

   = 120 sweets

   How many sweets are in the sweet jar?

_____
2 marks

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14. Sofia is given some money to buy her lunch.

She spends £1 on a drink.

She spends £2.69 on a sandwich.

She spends £1.81 on a flapjack.

She has half of her money left.

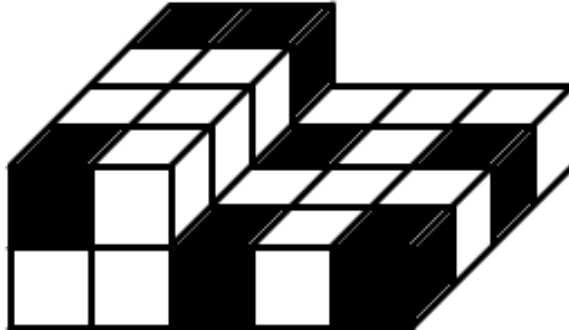How much money did Sofia have **to start with**?

Show your method

£

_____
2 marks

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15. This model is made with 28 cubes. Any cubes that you cannot see are white.

> What **percentage** of the cubes in the model are black?

%

————
1 mark

16. The children from 4 families all have one piano lesson.

Lessons cost £12 per child. There are 3 children in each family.

> What is the total cost of the piano lessons for all 4 families?

Show your method

£

————
2 marks

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17. Dante asked 50 adults what their favourite flower is.

These were his results.

Flower	Number of adults
Lilies	7
Roses	20
Daffodils	6
Orchids	3
Sunflowers	10
Tulips	4
Total	**50**

What percentage of the adults chose roses?

%

1 mark

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18. A shop sells a pack containing 4 bottles of water for £3.25.

The shop also sells individual bottles of water for 85p.

£3.25   85p

Maya buys 4 individual bottles of water. Theo buys a pack of water.

How much **more** does Maya spend than Theo?

Show your method

p

2 marks

19. Priya chooses a number between 5 and 10.

She multiplies it by 12 then subtracts 12
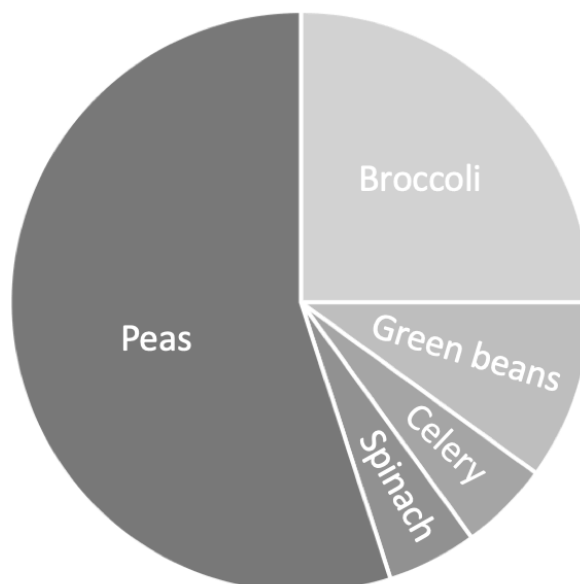
She then divides this result by 4

Her answer is 21

What was the number she started with?

2 marks

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20. The following pie chart shows the favourite green vegetables of children at a school.

There are 140 children in the school altogether.

How many children said their favourite vegetable is broccoli?

90% of the children said either peas, green beans or broccoli are their favourite.
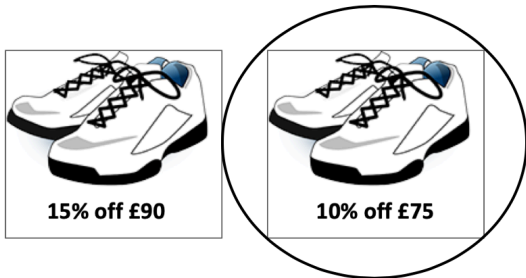
How many children **combined** said their favourite vegetable is either spinach or celery?

**We hope you enjoyed this paper about problem solving.
Please visit www.satsbootcamp.co.uk for more SATs help.**

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Answers

Qu.	Requirement	Mark
1	Award **ONE** mark for the correct answer of 1/5. Also accept 2/10.	1m
2	£11.38	1m
3	Part A). 30 Part B). 9	Up to 2m
4	1,665	1m
5	12	Up to 2m
6	18	Up to 2m
7	0.9	1m
8	14	Up to 2m
9	Award **TWO** marks for the correct trainers circled. 15% off £90 10% off £75	Up to 2m
10	£4.55	Up to 2m
11	25	Up to 2m
12	1.2kg	Up to 2m
13	450	Up to 2m
14	£11	Up to 2m

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Qu.	Requirement	Mark
15	25%	**1m**
16	£144	**Up to 2m**
17	40%	**1m**
18	15p	**Up to 2m**
19	8	**Up to 2m**
20	Part A). 35 Part B). 14	**Up to 2m**