

Sutton Maths Class

Year 5 - Week 18 - Data, Graphs and Charts

Starter:

1 $2\frac{3}{4} - 1\frac{1}{3} =$

2 $1\frac{1}{3} \div 2\frac{2}{3} =$

3 What is 0.02 as a fraction?

4 What is $\frac{7}{25}$ as a percentage?

5 What is $\frac{3}{25}$ as a decimal?

6 $200 \times 0.05 =$

7 $0.05 \times 2 =$

8 $25 \div 0.5 =$

Hint: First think about how many times does 0.5 'go into' 1?

9 Find $\frac{1}{8}$ of 880kg.

10 Decrease 20kg by 15%.

11 What is 20mm as a fraction of 20cm?

Hint: units need to be the same first.

12 Calculate $-25 - 30$

13 Calculate $600 - -50$

14* $6 \div -0.5 =$

15 What is the highest common factor of 100 and 60?

16 Find x :

$$3 \times 2^x = 24$$

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- 17 What are the next two terms: 7, 12, 12, 10, 17, 8, ____, ____
- 18 $6 \times 4 - 2^2 =$
- 19 Susan and Annette share 20 cakes in the ratio of 3:2. How many cakes does Annette have? What percentage of the cake does Susan have?
- 20* Find the n^{th} term of -4, -1, 2, 5, 8 ...
- 21 Find the first four terms of the sequence with n^{th} term $5n + 5$.
- 22 Write an equation to represent the following statement and solve your equation to find the number you first thought of:
*"I think of a number, divide it by 3 and add 7.
The answer is 17."*
- 23* Solve $\frac{x + 1}{2} = 3$
- 24* Solve $5 + 2x = 15$
Note: $5 + 2x$ is the same as $2x + 5$, just like $2+4$ is the same as $4+2$.
- 25* Solve $9x - 6 = 2x - 27$
- 26 I throw **two** coins. How many possible outcomes are there? What is the probability that I throw two heads?
- 27 Find 60 miles in km.

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Questions:

1 The pie chart shows the results of a survey of children.

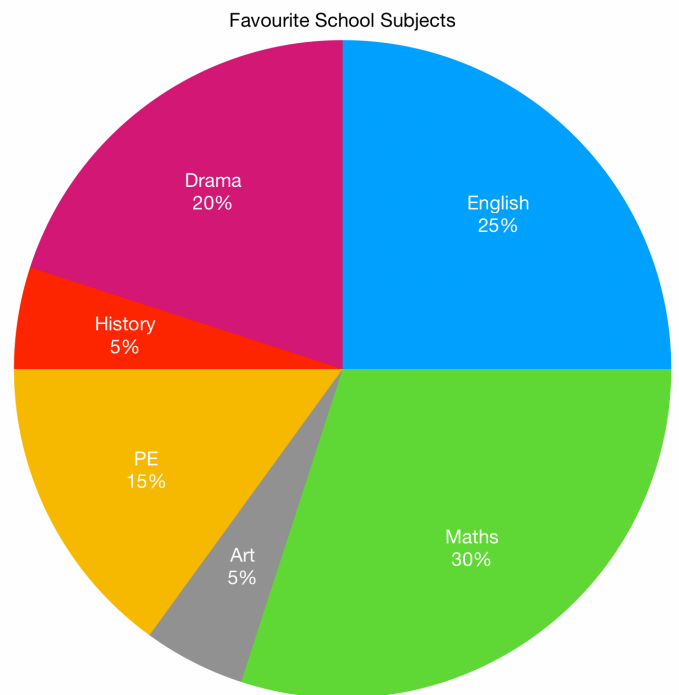
a) 100 children chose English as their favourite subject. How many children were there in total?

b) How many children chose Drama?

c) How many children chose History?

d) How many children did not choose Maths?

e) What fraction of children chose either PE or Art?



2 Every year the children in a school raise money for charity. The graph shows how much they raised from charity sales and sponsored runs from 2015 to 2020.

a) How much did the charity sale make in 2015?

b) How much did the sponsored run make in 2019.

c) Estimate how much was made in 2018 by the sponsored run?

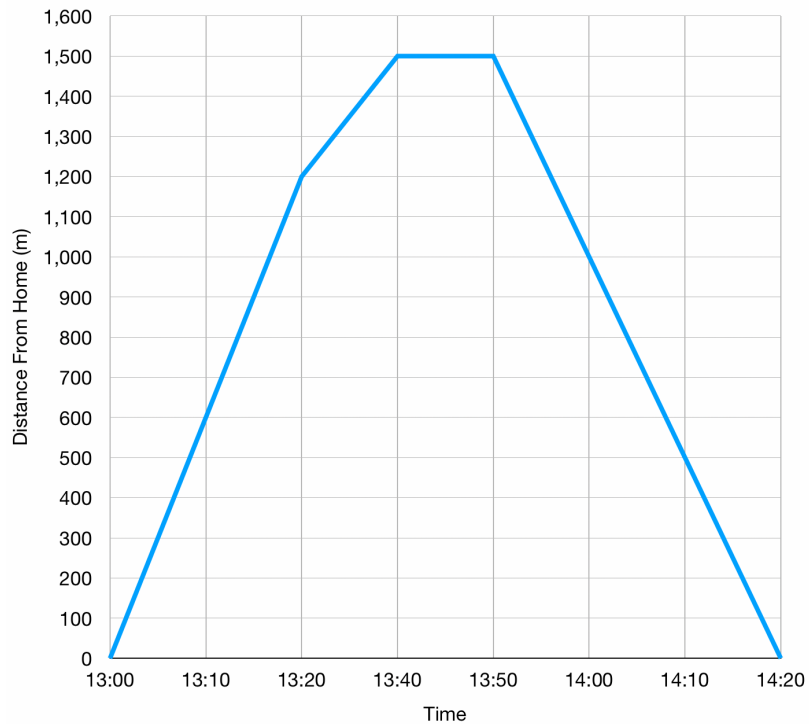
d) What fraction of the total money from both events raised in 2019 was from the charity sale?



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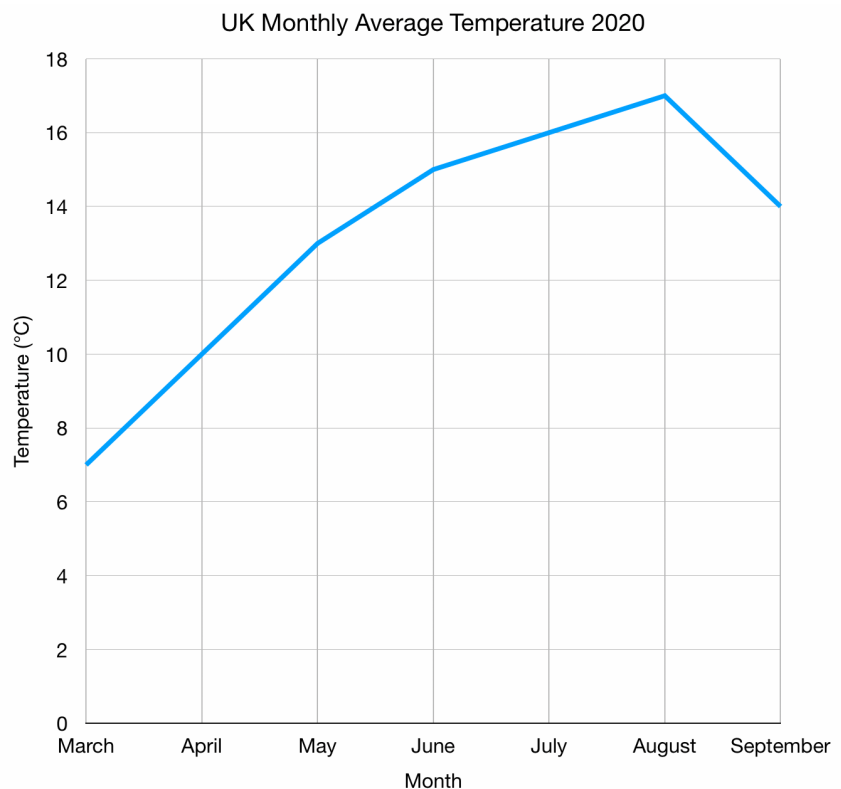
3 The following graph shows the distance Katie was from home between 13:00 and 14:20, when she went for a walk.

- How far was Katie from home at 13:10?
- How far did Katie walk between 13:00 and 13:40?
- At what time did Katie have a rest? How long was her rest?
- How far was Katie from home when she had a rest?
- How long did it take Katie to walk home after her rest?
- Between 13:20 and 13:40 Katie walked 300 metres in ten minutes. During this time how many metres did she walk per minute?



4 The graph shows the monthly average temperature in the UK in 2020.

- What was the highest average temperature and in which month?
- What was the average temperature in August?
- What was the range of temperatures from March to September?

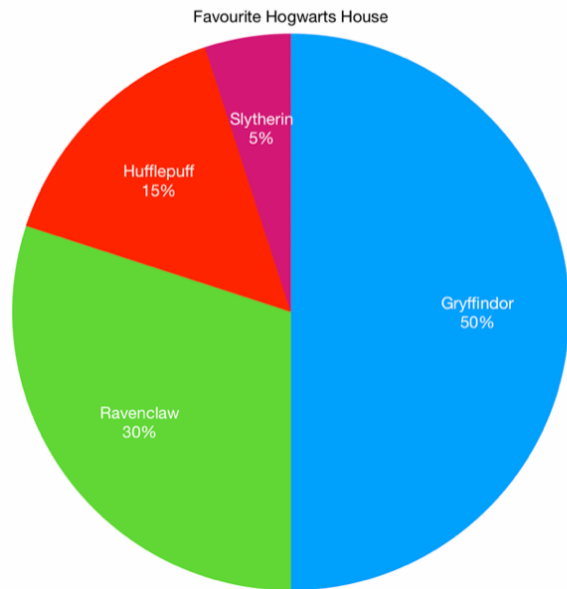


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Classwork Practice:

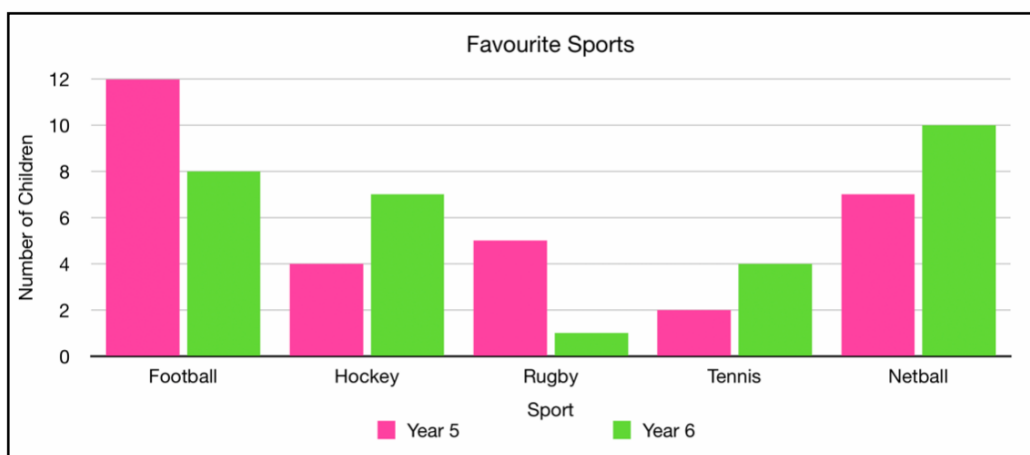
1 Some children were surveyed in a school and asked their favourite Hogwarts House. The results were used to make a pie chart.

- 20 children chose Gryffindor.
How many children were surveyed in total?
- How many children chose Slytherin?
- How many children chose either Hufflepuff or Ravenclaw?
- How many children did not choose Gryffindor?



2 The following bar chart shows from a survey of year 5 and year 6 pupils. The chart shows the all of the children's favourite sports (ie no one said any other sports or none).

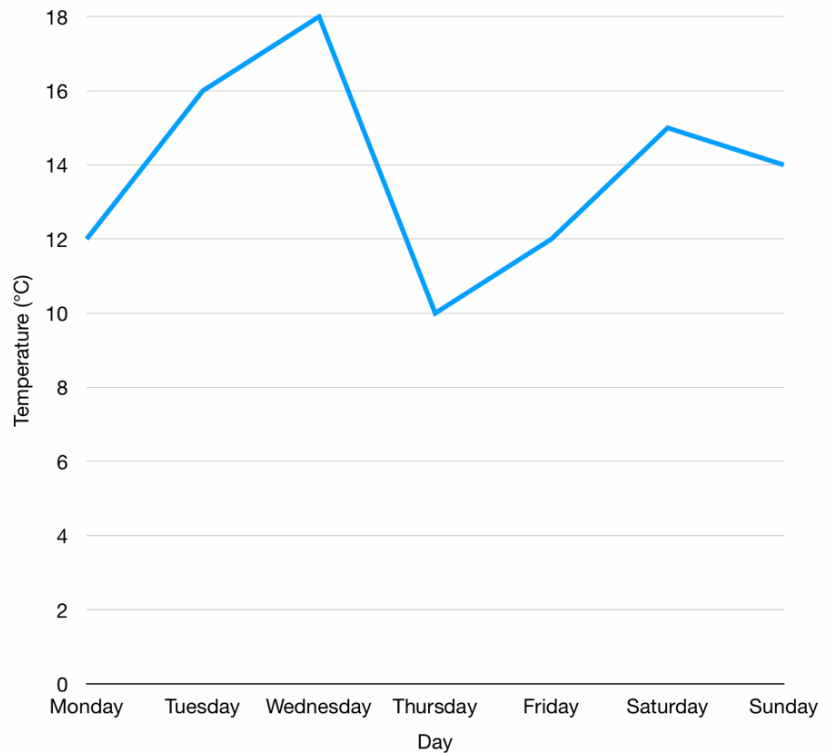
- How many year 5 children were surveyed?
- How many children were surveyed in total?
- What percentage of children overall chose Football?
- What fraction of children in year 5 chose Netball?
- Which was the most popular sport in year 6?
- How many year 5 children did not choose Rugby?



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3 The line graph below shows the average temperature over a seven day period in September.

- How many days of the week was the temperature below 14°C .
- On which day was the temperature 16°C .
- What was the temperature on Saturday?
- On which day was the largest temperature change?
- What was the range of temperatures?
- What was the mode temperature? On which days did this temperature occur?
- What was the lowest temperature?



4 The graph shows the distance Fred was from his house when he went for a drive.

- How far was Fred from home at 10:45?
- How much further from home did Fred drive between 11:00 and 11:15?
- Fred stopped in the middle of his drive for a rest. How long did he rest for?
- After Fred had a rest how long did he take to drive home?

