



MATHS HOMEWORK = HELP

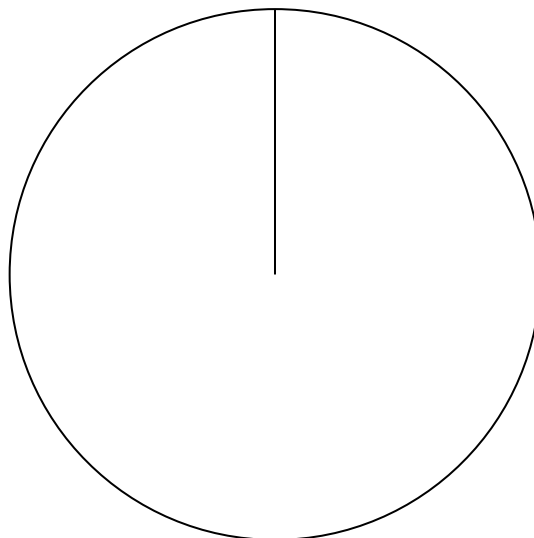
Handling Data – Pie Charts

- 1) 30 school pupils were asked what their favourite type of music was.
Their results are shown in the table below:-

Type of music	Number of Pupils	Degrees
Hip Hop	8	
Indie	6	
Rock	4	
Pop	10	
Other	2	
Total	30	

Plot these results on the pie chart below:-

Type of Music

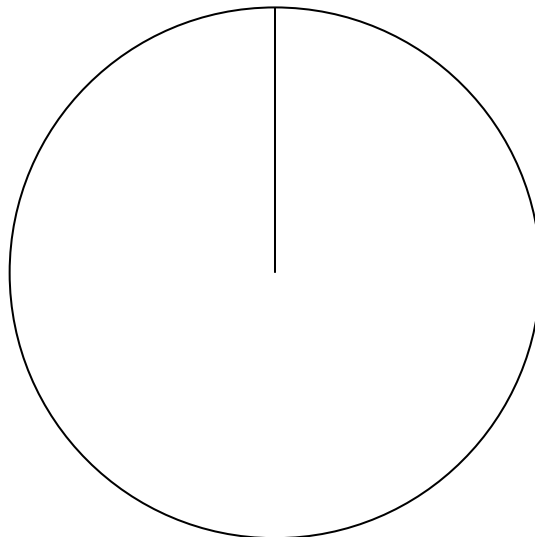


2) 24 boys were asked what their favourite sport was. Their results are shown on the pie chart below:-

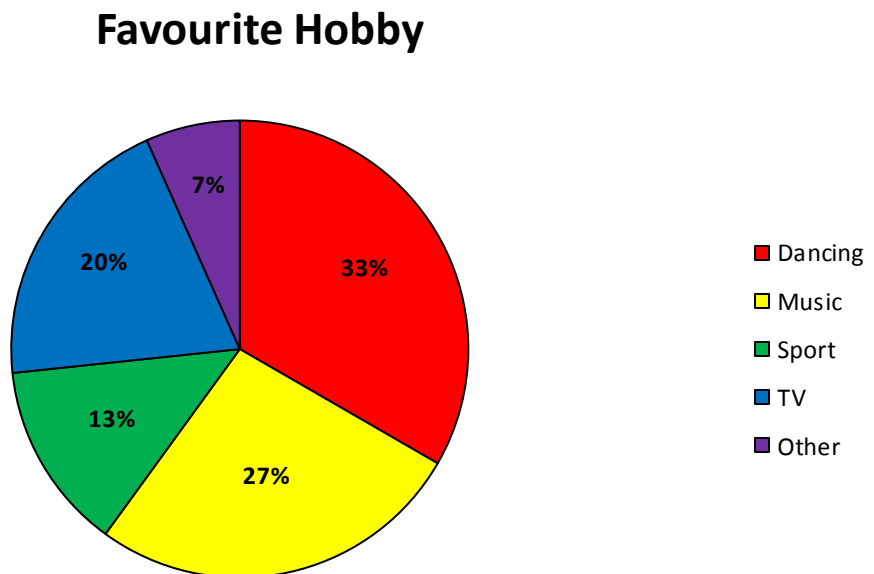
Favourite Sport	Number of Boys	Degrees
Rugby	6	
Football	10	
Cricket	4	
Tennis	3	
Other	1	
Total	24	

Plot these results on the pie chart below:-

Favourite Sport



3) 15 girls were asked what their favourite hobby was. The results are shown on the pie chart below:-



Use the pie chart to work out how many girls chose each hobby as their favourite.

Favourite Hobby	Percentage	Number of Girls
Dancing		
Music		
Sport		
TV		
Other		
Total		



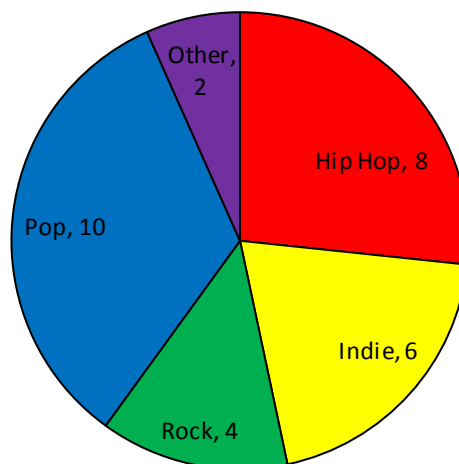
Answers

1) 30 school pupils were asked what their favourite type of music was.
Their results are shown in the table below:-

Type of music	Number of Pupils	Degrees
Hip Hop	8	$(8 \div 30) \times 360 = 96^\circ$
Indie	6	$(6 \div 30) \times 360 = 72^\circ$
Rock	4	$(4 \div 30) \times 360 = 48^\circ$
Pop	10	$(10 \div 30) \times 360 = 120^\circ$
Other	2	$(2 \div 30) \times 360 = 24^\circ$
Total	30	360°

Plot these results on the pie chart below:-

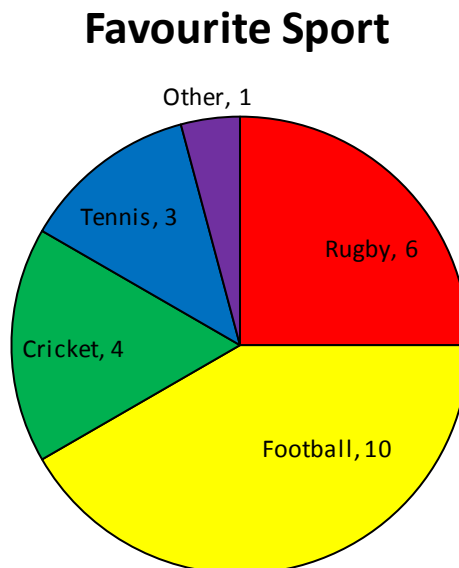
Type of Music



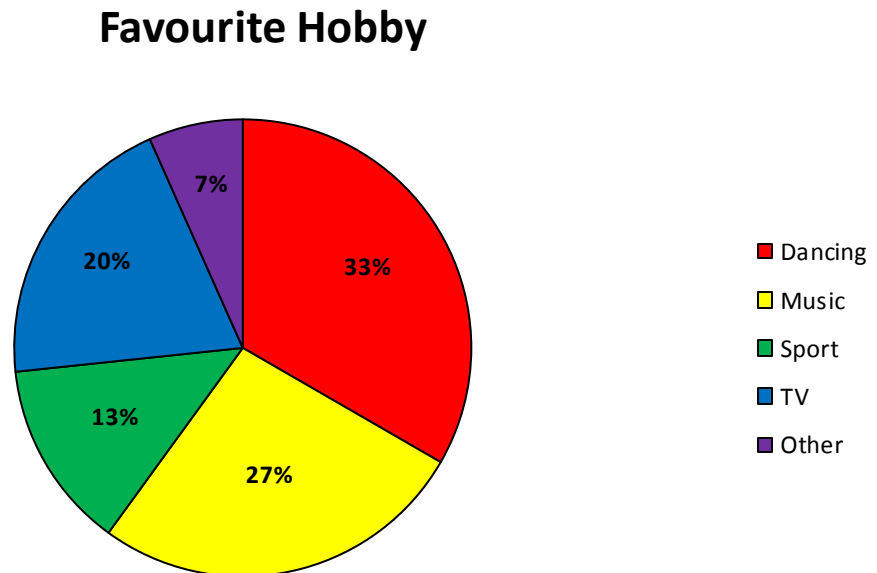
2) 24 boys were asked what their favourite sport was. Their results are shown on the pie chart below:-

Favourite Sport	Number of Boys	Degrees
Rugby	6	$(6 \div 24) \times 360 = 90^\circ$
Football	10	$(10 \div 24) \times 360 = 150^\circ$
Cricket	4	$(4 \div 24) \times 360 = 60^\circ$
Tennis	3	$(3 \div 24) \times 360 = 45^\circ$
Other	1	$(1 \div 24) \times 360 = 15^\circ$
Total	24	360°

Plot these results on the pie chart below:-



3) 15 girls were asked what their favourite hobby was. The results are shown on the pie chart below:-



Use the pie chart to work out how many girls chose each hobby as their favourite.

Favourite Hobby	Percentage	Number of Girls
Dancing	33%	$(33 \div 100) \times 15 = 5$
Music	27%	$(27 \div 100) \times 15 = 4$
Sport	13%	$(13 \div 100) \times 15 = 2$
TV	20%	$(20 \div 100) \times 15 = 3$
Other	7%	$(7 \div 100) \times 15 = 1$
Total	100%	15



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Tips and Techniques

1. Read each question slowly. You may find it helpful to underline the numbers and important information that will affect your answer.

For example: Find 23 more than 57?

2. If you do not understand the question straightaway, try reading it through a couple of times until it makes sense.

3. Make sure you read the question carefully. Often, the words highlighted in bold in the question will be the part you need to pay the most attention to, e.g. *Which country had the **greatest increase** in visitors from 2005 to 2006?*

4. Even if you know the answer to the question without working it out on paper, it is important to always show your working out in the box provided. You will lose marks if you do not do this.

5. Always use a ruler when drawing shapes, symmetry or graphs.

6. Topics that are useful to revise;

* **Time** - 24 hour clock, adding a length of time e.g. 45 minutes to a certain time. An example of a question where time is used is - *"The time is one thirty in the afternoon. Write this as it would be shown on a twenty-four hour clock?"*

* **Money** - find the total amount of shopping items, how much change will you get from a £5, £10 note etc.

* **Number calculations** - times tables, addition, subtraction, multiplication and division methods.

* **Measurement** - how many metres in a kilometre, millilitres in a litre and grams in a kilogram?

* **Percentages and fractions** - $1/2=0.5$ or 50%, $1/4=0.25$ or 25%, $3/4=0.75$ or 75%, $1/3=0.33$ or 33%, $1/5=0.2$ or 20%

7. Check to see how many marks the question is worth. If it is worth more than one mark, make sure you show your working out.

8. Use everyday objects to help your child practice certain topics. For example; a shopping receipt can be good revision for money questions - adding totals and finding change. Other useful objects that you could use are;

* **Television Guide** - Practice the time a programme starts, what time will it finish? how long does the programme last?

* **Weather Chart** - Change in temperature - e.g. *The temperature fell from 3 degrees celsius to -4 degrees celsius. By how many degrees did the temperature fall?*

* **Measure yourself and other family members to practice height** (in cm, metres), weight (in grams, kilograms), area of hands and feet. You could also calculate the average family height, weight etc.