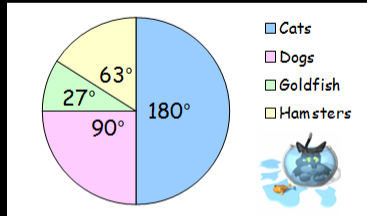


Outcome 2 - Calculations from Pie Charts

Bronze examples

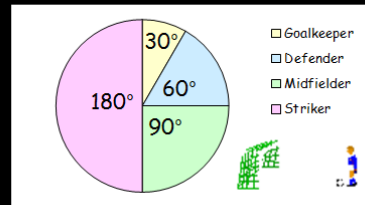
Examples... 420 pupils were asked to name their favourite pet. The results were shown in the pie chart below.



- (a) How many preferred cats?
 $420 \div 2 = 210$ pupils
- (b) How many preferred dogs?
 $420 \div 4 = 105$ pupils

Silver examples

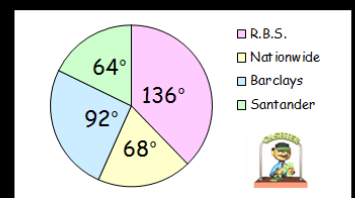
Examples... 48 boys were asked to name their best position in football. The results were shown in the pie chart below.



- (a) How many preferred to play in defence?
 $48 \div 6 = 8$ pupils
- (b) How many preferred to play in goal?
 $48 \div 12 = 4$ pupils

Gold examples

Examples... 1080 people were asked who they banked with. The results were shown in the pie chart below.

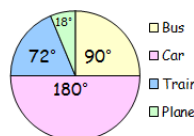


- (a) How many preferred to bank with Barclays?
 $92 \div 360 \times 1080 = 276$ people
- (b) How many preferred to bank with R.B.S?
 $136 \div 360 \times 1080 = 408$ people

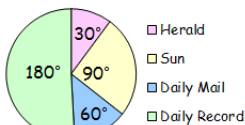
Bronze Questions

For each pie chart, calculate the following...

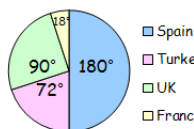
- 1 140 pupils asked. How many preferred car?



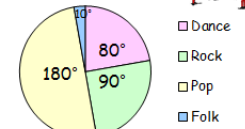
- 2 20 adults asked. How many preferred Daily Record?



- 3 240 tourists asked. How many preferred UK?



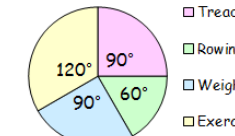
- 4 56 young people asked. How many preferred rock?



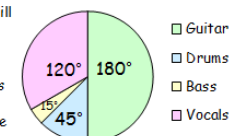
Silver Questions

For each pie chart, calculate the following...

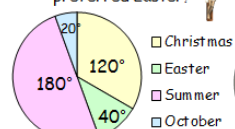
- 1 21 athletes asked. How many preferred exercise bike?



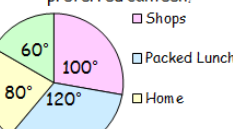
- 2 72 musicians asked. How many preferred drums?



- 3 540 pupils asked. How many preferred Easter?



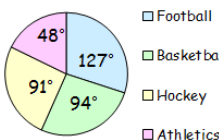
- 4 300 pupils asked. How many preferred canteen?



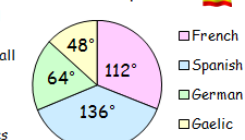
Gold Questions

For each pie chart, calculate the following...

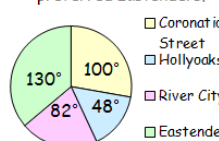
- 1 30 students asked. How many preferred athletics?



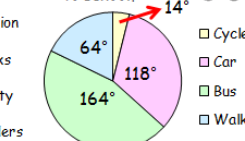
- 2 90 language students asked. How many chose Spanish?



- 3 180 adults asked. How many preferred Eastenders?



- 4 720 students asked. How many cycled to school?



Common Fractions in Pie Charts:

$$\frac{180^\circ}{360^\circ} = \frac{1}{2} \quad \frac{90^\circ}{360^\circ} = \frac{1}{4}$$



More Fractions in Pie Charts:

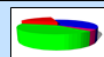
$$\frac{60^\circ}{360^\circ} = \frac{1}{6} \quad \frac{30^\circ}{360^\circ} = \frac{1}{12}$$

$$\frac{120^\circ}{360^\circ} = \frac{1}{3} \quad \frac{40^\circ}{360^\circ} = \frac{1}{9} \quad \frac{45^\circ}{360^\circ} = \frac{1}{8}$$

How to calculate fractions in Pie Charts using a calculator:



$$\text{angle} \div 360 \times \text{amount}$$



Bronze Answers

- | | |
|----------------|--------------------|
| 1. 70 pupils | 2. 10 adults |
| 3. 60 tourists | 4. 14 young people |

Silver Answers

- | | |
|---------------|----------------|
| 1. 7 athletes | 2. 9 musicians |
| 3. 60 pupils | 4. 50 pupils |

Gold Answers

- | | |
|---------------|-------------------------|
| 1. 4 students | 2. 34 language students |
| 3. 65 adults | 4. 28 students |