



H17-10min Comparative and Proportional Pie Charts: 10-minute Pack

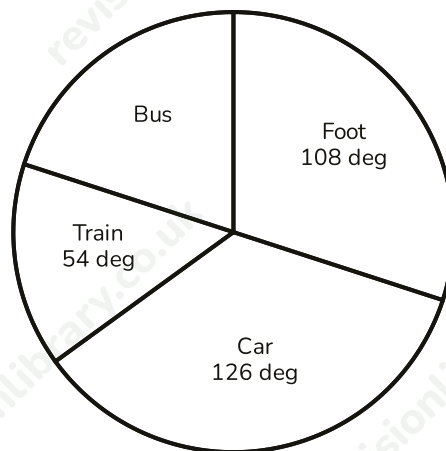
EDEXCEL 1ST0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** The pie chart shows how 120 visitors travelled to a museum one day. The sector angles for Foot, Car and Train are marked on the chart. The angle for Bus is not given.



How 120 visitors travelled to the museum

- (a) Work out the sector angle representing Bus. (2)

- (b) Work out how many of the 120 visitors travelled to the museum by car. (2)

- (c) Work out the percentage of visitors who travelled to the museum by train. (2)

(Total for Question 1 is 6 marks)

2 Club P has 40 members, split by favourite activity as follows: Football 16 members, Netball 14 members, Athletics 10 members. A pie chart is to be drawn to show this information.

(a) Work out the sector angle for Football. (1)

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(b) Work out the sector angle for Netball. (1)

.....

(c) Work out the sector angle for Athletics. (1)

.....

(Total for Question 2 is 3 marks)

3 Two pie charts, drawn to compare two data sets, have radii in the ratio $r_2 : r_1 = 5 : 3$. Work out the ratio of the two totals, $\text{total}_2 : \text{total}_1$, giving your answer in its simplest form.

(Total for Question 3 is 2 marks)

Mark scheme · H17-10min Comparative and Proportional Pie Charts: 10-minute Pack

Question 1

- (a) **M1** $360 - (108 + 126 + 54)$, oe
- (a) **A1** 72 (degrees) cao
- (a) **Answer: 72 degrees**
- (b) **M1** $126/360 \times 120$, oe
- (b) **A1** 42 cao
- (b) **Answer: 42**
- (c) **M1** $54/360 \times 100$, oe
- (c) **A1** 15% cao
- (c) **Answer: 15%**

Question 2

- (a) **B1** 144 (degrees) cao
- (a) **Answer: 144 degrees**
- (b) **B1** 126 (degrees) cao
- (b) **Answer: 126 degrees**
- (c) **B1** 90 (degrees) cao
- (c) **Answer: 90 degrees**

Question 3

- **M1** $\text{total2}:\text{total1} = (r2:r1)^2$, oe, e.g. $5^2 : 3^2$
- **A1** 25 : 9 cao
- **Answer: 25 : 9**