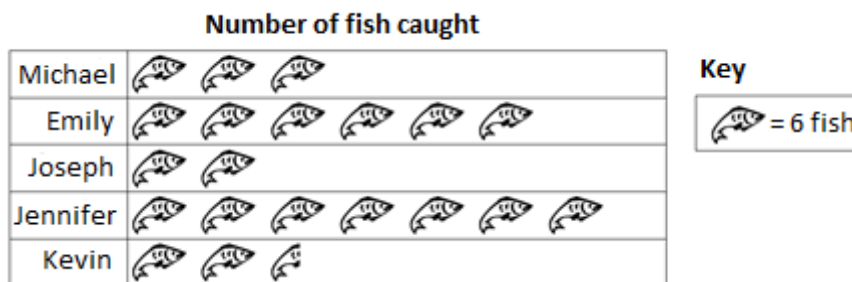
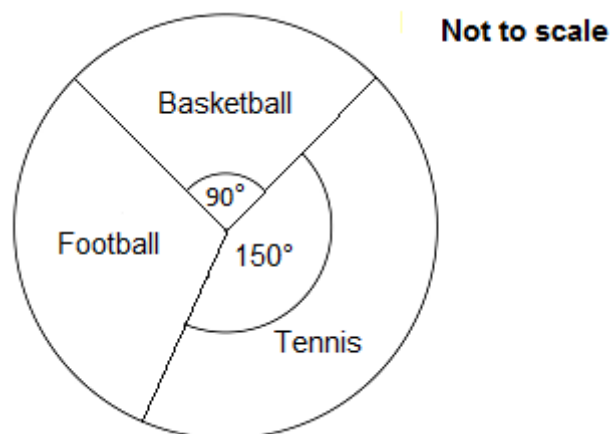


Foundation Check In - 12.02 Interpreting and representing data

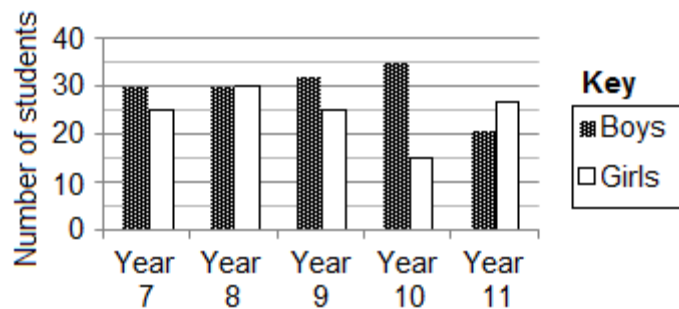
1. The pictogram shows the number of fish caught by five friends.
How many fish did they catch in total?



2. The pie chart below represents the responses from 120 students asked to choose their favourite sport.
How many students chose Football?



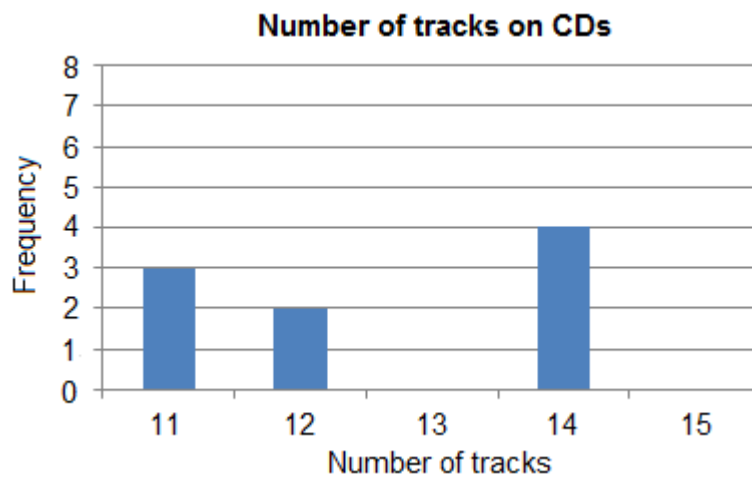
3. How many more students are in Year 8 than in Year 10?



GCSE (9-1) MATHEMATICS

4. Zaria has 20 music CDs. The frequency table gives some information of the number of tracks on each CD.
Complete the table and then use this information to complete the bar chart below.

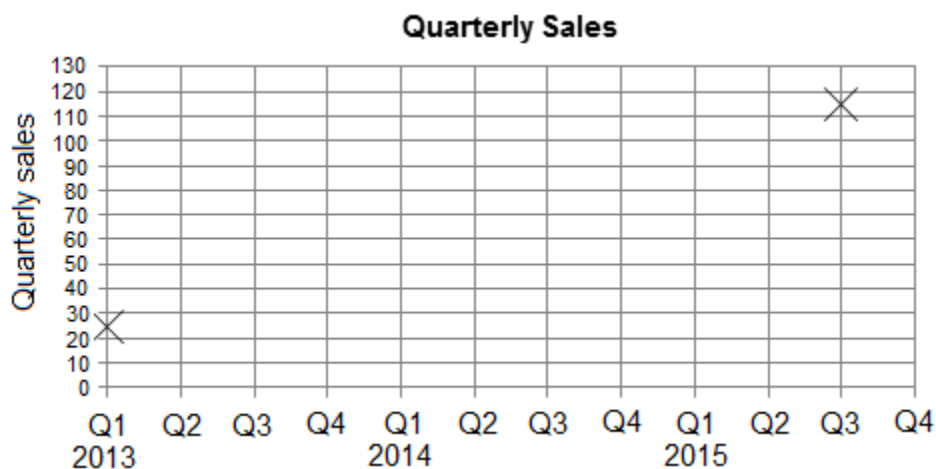
Number of Tracks	Frequency
11	3
12	2
13	
14	4
15	6



5. The table shows the quarterly sales in a high street shop.

Year	Q1	Q2	Q3	Q4
2013	25	75	105	45
2014	30	85	110	50
2015	40	80	115	

Use the sales data to complete the graph below.



6. Describe any patterns you can see on the completed graph in Question 5.



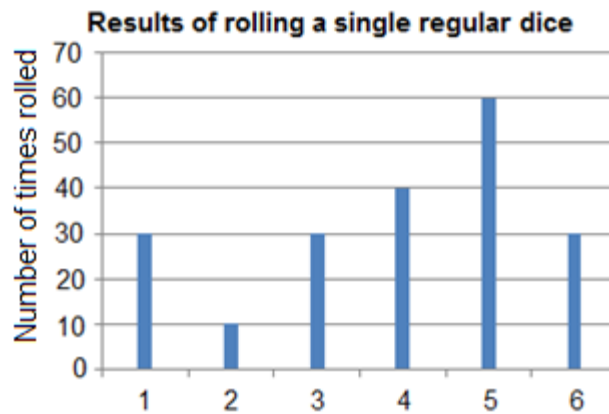
GCSE (9-1) MATHEMATICS

7. 160 children go on a school trip either to the amusement park or the zoo. 84 children go to the amusement park, of which 38 are boys. 28 girls go to the zoo. Represent this information in a two-way table.
8. Freda wants to represent the following data in a pie chart.

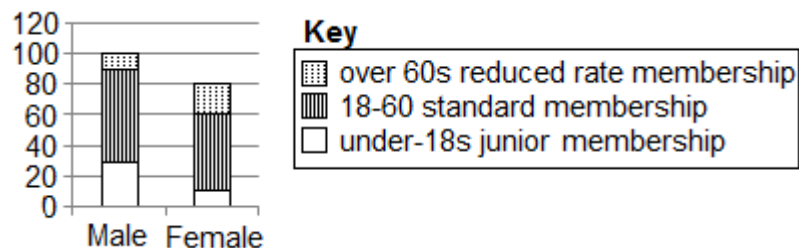
Favourite Colour	Frequency
Red	40
Blue	60
Yellow	40
Green	70

Show that the angle of the sector representing Green is 120° .

9. The vertical line chart shows the score from rolling a single regular dice 200 times. Calculate the sum of all 200 scores.



10. The composite bar chart shows the membership of a sports club.



The cost of standard membership is £20.

How much revenue does the club generate from standard memberships?



GCSE (9–1) MATHEMATICS

Extension

Carmel asked 100 students how they travelled to school one day. Each student either walked, cycled or came by bus.

46 of the 100 students are boys.

13 of the boys came by bus.

18 girls cycled.

22 of the 38 students who walked are girls.

(a) Work out the total number of students who cycled to school that day.

(b) If a girl is chosen at random, what is the probability that she came by bus that day?



GCSE (9-1) MATHEMATICS

Answers

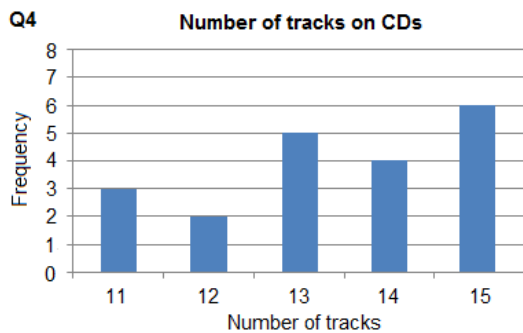
- 123 fish
- 40 students
- 10 students
- 5 CDs have 13 tracks. See graph below.
- See graph below
- Possible answers include: repeating pattern each year, maximum quarterly sales in middle of each year, peaks in Quarter 3 and troughs in Quarter 1, gradual increase in quarterly sales over time, etc.
-

	Amusement park	Zoo	Total
Girls	46	28	74
Boys	38	48	86
Total	84	76	160

8. Angle for Green $\frac{70}{210} \times 360 = 120^\circ$

9. 780

10. $110 \times \text{£}20 = \text{£}2200$



Extension

(a) 35 (b) $\frac{7}{27}$

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Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Interpret a pictogram			
AO1	2	Interpret a pie chart			
AO1	3	Interpret a multiple bar chart			
AO1	4	Interpret a frequency table and construct a bar chart			
AO1	5	Plot a time series graph			
AO2	6	Identify patterns in a time series graph			
AO2	7	Design a two-way table			
AO2	8	Calculate an angle in a pie chart			
AO3	9	Use graphical data to solve a problem			
AO3	10	Interpret and use data from a composite bar chart			

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