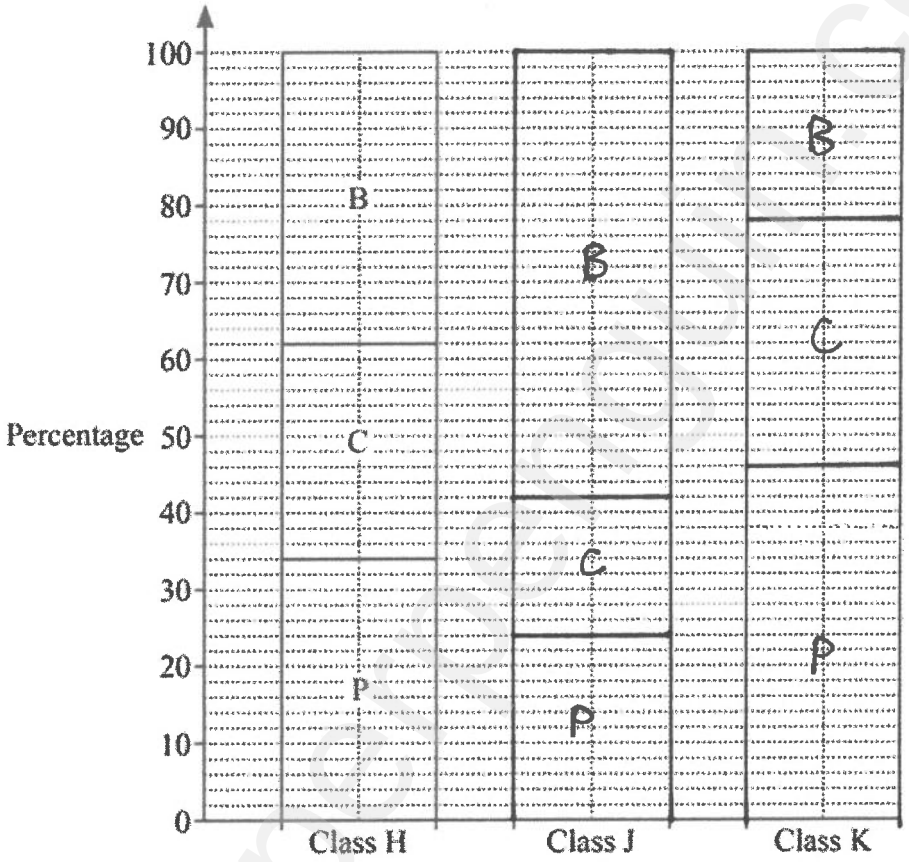
4 The table shows the percentage of students in each of three classes who study physics, chemistry and biology.

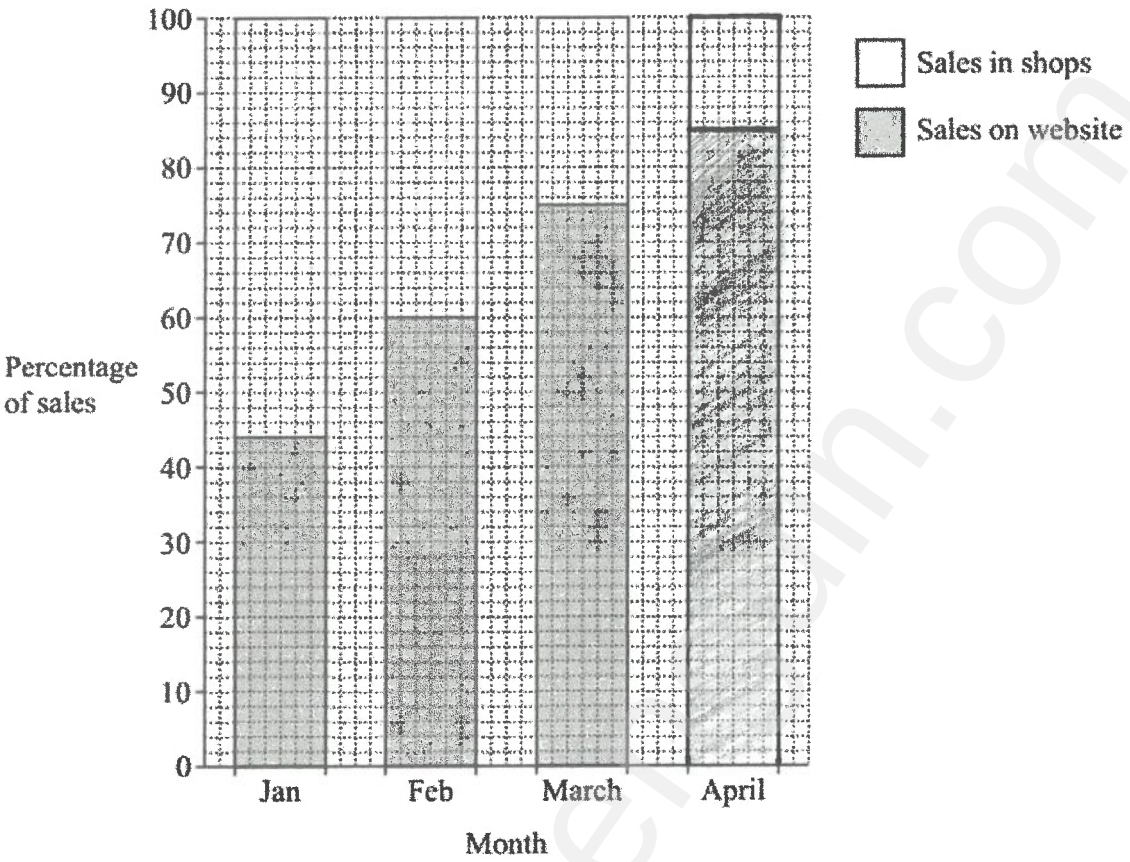
	Physics (P)	Chemistry (C)	Biology (B)
Class H	34	28	38
Class J	24	18	58
Class K	46	32	22

Complete the compound bar chart to show this information.



[3]

11 A company sells items either on a website or in shops.
The composite bar chart shows the percentage of sales on the website and in shops for January, February and March.



(a) In April, $\frac{17}{20}$ of the company's sales were on the website.

On the grid, draw the bar for April. [2]

$\frac{17}{20} \xrightarrow{\times 5} \frac{85}{100} = 85\%$.

(b) In February, the company had sales of \$3.5 million.

Work out the value of sales **in shops** in February.

Feb. shop sales: 40%

40% of 3.5m

$= 3.5 \times 0.4$

$= 1.2$ million

\$ 1.2 million [3]

5 One week a shop sells 120 jars of ketchup.
The table shows the number of jars of each size sold.

Size	Small	Medium	Large
Number sold	20	70	30
Angle	60	210	90

Total = 120

Show this information in a pie chart.

[3]

120 people = 360°

÷120 ↓ ÷120

1 person = 3°

2 The table shows the number of each type of bird seen in a garden on Monday.

Type of bird	Frequency	Pie chart sector angle
Goldfinch	8	96°
Jay	6	72°
Starling	11	132°
Robin	5	60°

total = 30

(a) Find the percentage of the birds that are Starlings.

$\frac{11}{30} \times 100 = 36.7°$

36.7 % [2]

(b) (i) In the table, complete the column for the pie chart sector angle. [2]

(ii) Complete the pie chart to show the information in the table.

[2]

8 birds = 96°

÷8 ↓ 1 bird = 12° ÷8

2 Thibault records the number of cars of each colour in a car park.

Colour	Black	White	Silver	Red
Number of cars	8	5	4	3

Total = 20

He draws a pie chart to show this information.

Calculate the sector angle for the red cars.

20 cars = 360° (÷20)
1 car = 18° (×3)
3 cars = 54°

54° [2]

5 There are 20 cars in a car park and 3 of the cars are blue.

(a) James wants to draw a pie chart to show this information.

Find the angle of the sector for the blue cars in this pie chart.

20 cars = 360° (÷20)
1 car = 18° (×3)
3 cars = 54°

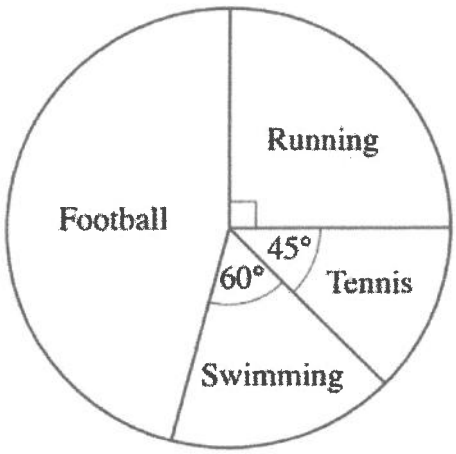
54° [2]

(b) One of the 20 cars is picked at random.

Find the probability that this car is **not** blue.

$\frac{17}{20}$ [1]

11



The pie chart shows the favourite sports of all the students at a school.
180 students chose running as their favourite sport.

Work out

(a) the total number of students at the school,

Running : 180 : 180 people = 90°

720 people = 360° (×4)

720 ..... [1]

(b) the number of students that chose football as their favourite sport.

180 people = 90° (÷180)

1 person = 0.5°

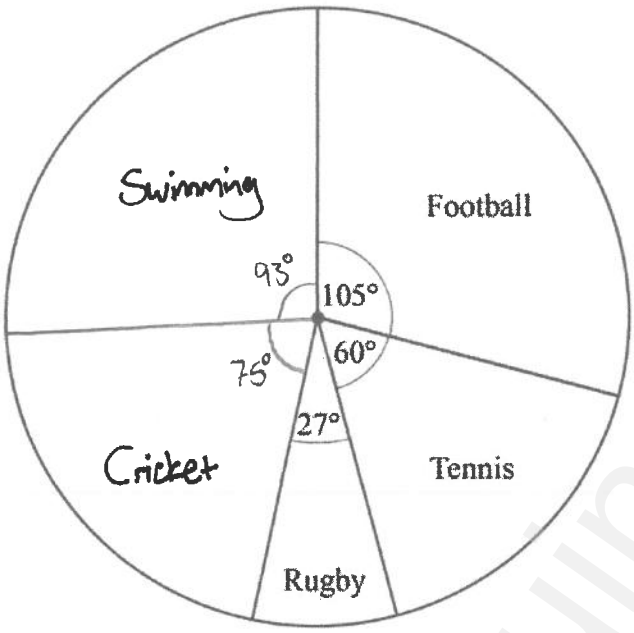
Angle for Football:

360 - (90 + 45 + 60) = 165°

165 ÷ 0.5 = 330 students

330 ..... [2]

8 (a) Jean asks 600 people to choose their favourite sport.
The pie chart shows some of this information.



(i) Show that 100 people choose tennis.

600 people = 360°
÷600 ↓ ↓ ÷600
1 person = 0·6°

60 ÷ 0·6 = 100 people

[1]

(ii) Work out how many people choose rugby.

27 ÷ 0·6 = 45

45 [2]

(iii) 125 people choose cricket and the rest choose swimming.

Complete the pie chart to show this information. [2]

Cricket:
1 person = 0·6°
×125 ↓ ↓ ×125
125 people = 75°