1. 60 students were asked how they get to school.

The table shows the results.

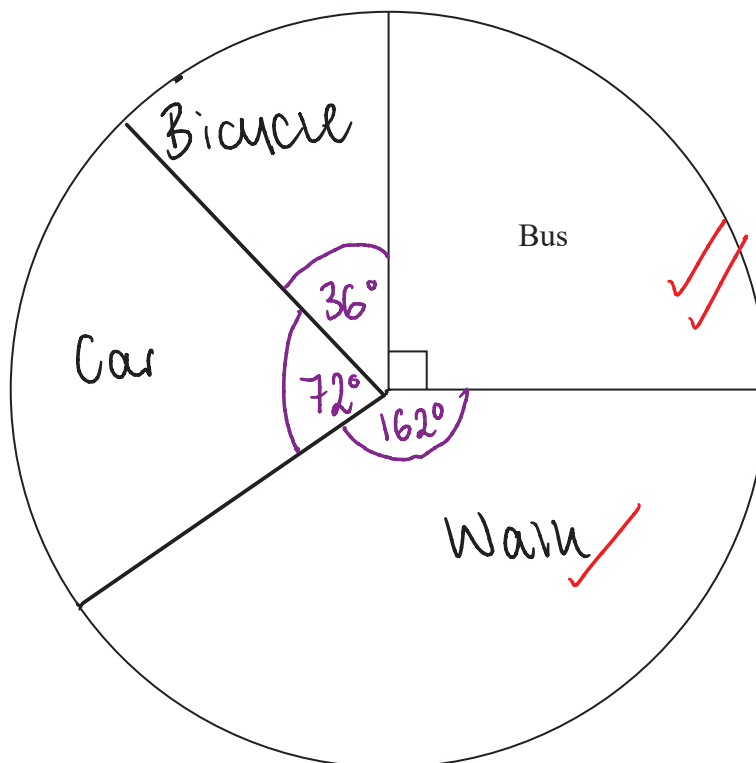|	Bus	Walk	Car	Bicycle
Number of students	15	27	12	6

(a) What fraction of the 60 students did **not** walk to school?

$$15 + 12 + 6 = 33 ✓$$

$$\frac{33}{60}$$

$$\frac{33}{60} ✓$$

(2)

(b) Complete the pie chart for the information in the table.

$$\frac{360}{60} = 6$$

Each student
represented by
6° on pie
chart

Walk
27 × 6 = 162°

Car
12 × 6 = 72°

Bicycle
6 × 6 = 36° ✓
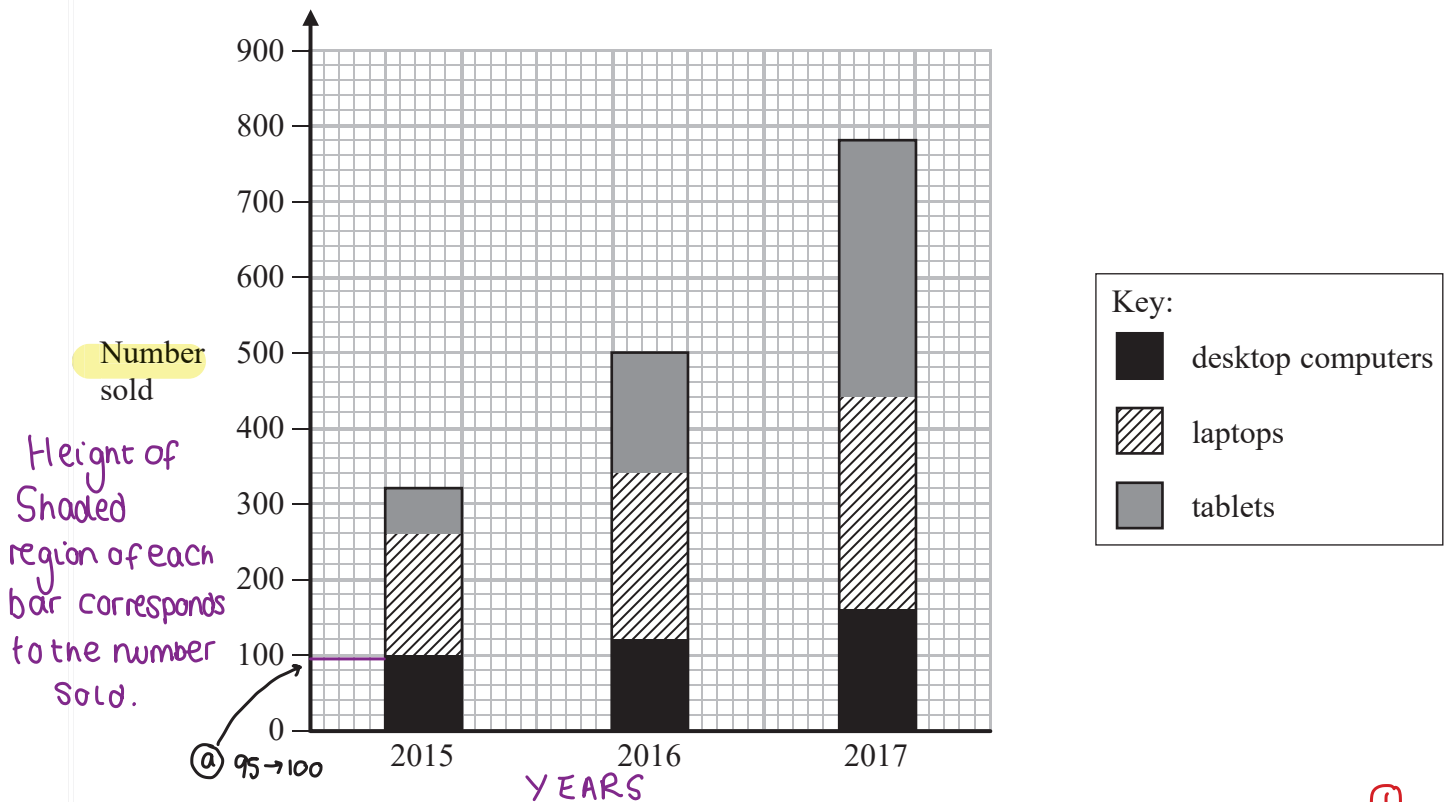
Bicycle

Car

36°

72°

162°

Bus ✓

Walk ✓

(4)

(Total for Question   is 6 marks)

2. A shop sells desktop computers, laptops and tablets.

The composite bar chart shows information about sales over the last three years.

Number sold

Height of Shaded region of each bar corresponds to the number Sold.

@ 95→100

Y EARS

Key:
- ■ desktop computers
- ▨ laptops
- ▦ tablets

(a) Write down the number of desktop computers sold in 2015

Height of the black shaded region of the 2015 bar.

(Using Values on the y-axis) $97 - 0 = 97$

$(95 \rightarrow 100)$ ①

97

(1)

(b) Work out the total number of laptops sold in the 3 years.

Total height (all 3 years) of the bars shaded with diagonal lines.

2015 : $260 - 100 = 160$ ①
2016 : $340 - 120 = 220$
2017 : $440 - 160 = 280$ $160 + 220 + 280 = 660$ ①

660 ①

(3)

(c) State the item that had the greatest increase in sales over the 3 years.
Give a reason for your answer.

Tablets ① —   The bars get proportionally longer over time ①
          (most sold in 2017, least in 2015)

or   — The bars more than double each year

(2)

Alex says,

~This can be seen in the bar chart~

"In 2017, more tablets were sold than desktop computers. This means the shop makes more profit from the sale of tablets than from the sale of desktop computers."

~is profit previously mentioned at all?~

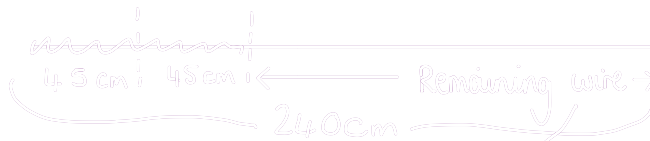(d) Is Alex correct?
You must justify your answer.

~No reference to profit in bar chart or question~

No   because   we   do not   know   costs / prices / profits made on the tablets and computers

(1)

(Total for Question   is 7 marks)

This section is
cut off

45cm   45cm   ← Remaining wire →
240cm

240 - 45 - 45 = 150cm

$\frac{150}{40}$ = 3.75   ≈ 3

how many
lengths of 40cm
go into 150cm

we round down to 3 as
he doesn't have enough wire to cut
4 full 40cm lengths.

3

3. A group of football fans were asked what their half time snack was.

The table below gives information about their answers.

Snack	Number of fans
burger	11
pie	17
hot dog	8

Draw an accurate pie chart for this information.

Total number of fans :
11 + 17 + 8 = 36

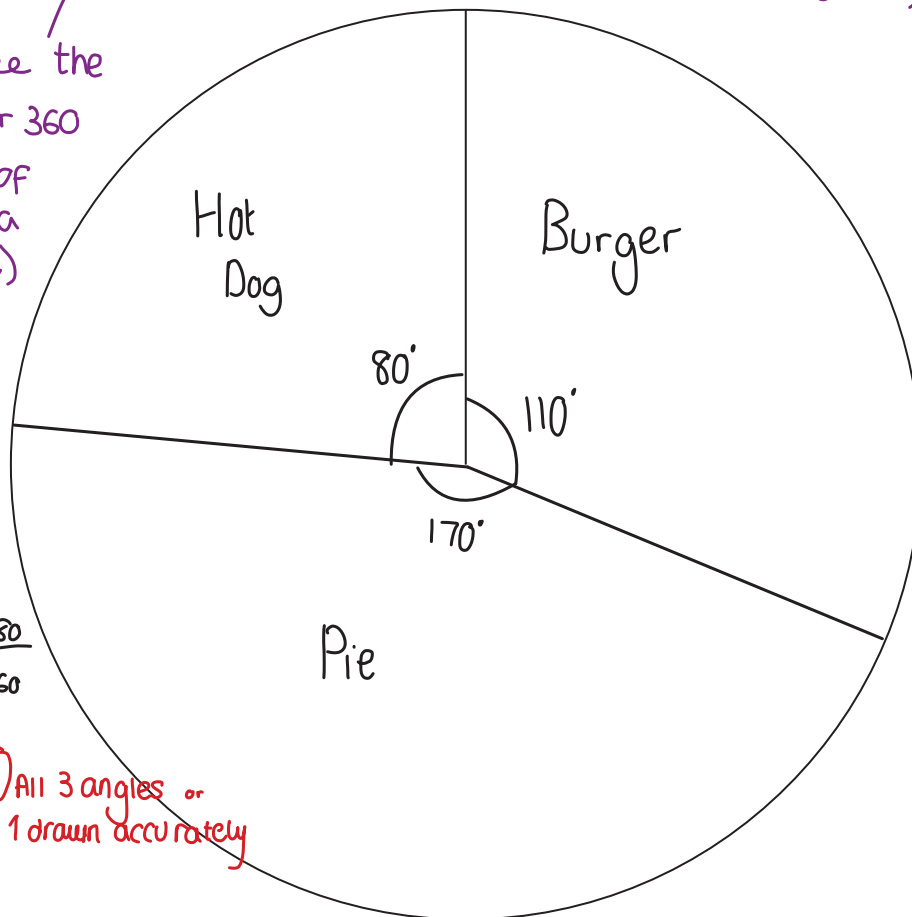Proportion of fans who chose burger

Burger : $\frac{11}{36} \times \frac{10}{10} = \frac{110}{360} = 110°$ angle (1) (to represent burgers)

to make the denominator 360 (the number of degrees in a circle)

Pie: $\frac{17}{36} \times \frac{10}{10} = \frac{170}{360}$

$= 170°$

Hot Dog: $\frac{8}{36} \times \frac{16}{10} = \frac{80}{360}$

$= 80°$ (1) All 3 angles or 1 drawn accurately

Hot Dog

Burger

80°

110°

170°

Pie

Check the angles sum to 360°
110 + 170 + 80 = 360° ✓

— Draw in segments and label angles / titles (1)

(Total for Question   is 3 marks)

4. Mrs Brown asked each child in her class which pet they liked best.

Here are her results.

dog	rabbit	cat	dog	dog	hamster
cat	dog	rabbit	hamster	cat	cat
dog	dog	cat	dog	rabbit	dog

(a) Complete the frequency table for this information.

Pet	Tally	Frequency
dog	JHT III	8
rabbit	III	3
cat	JHT	5
hamster	II	2

(2)

(b) On the grid below, draw a bar chart for this information.
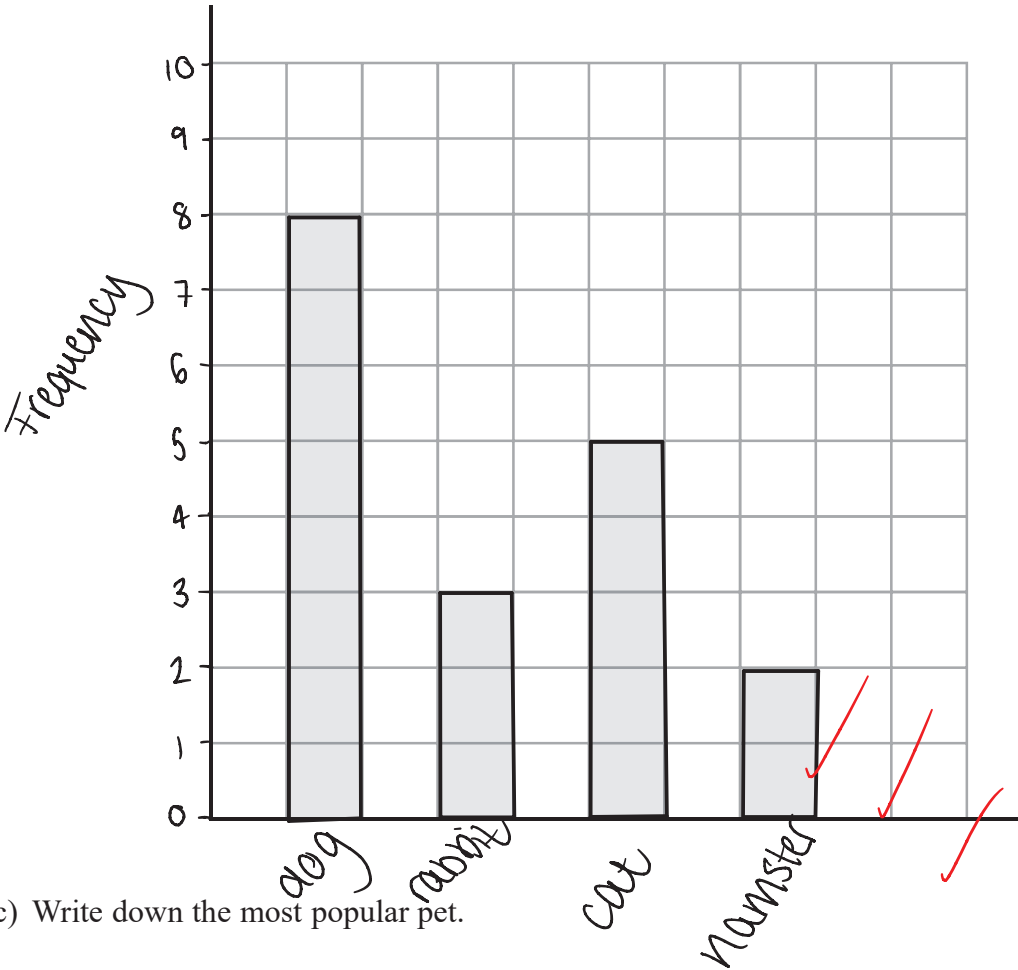
(3)

(c) Write down the most popular pet.

.... dog ....

(1)

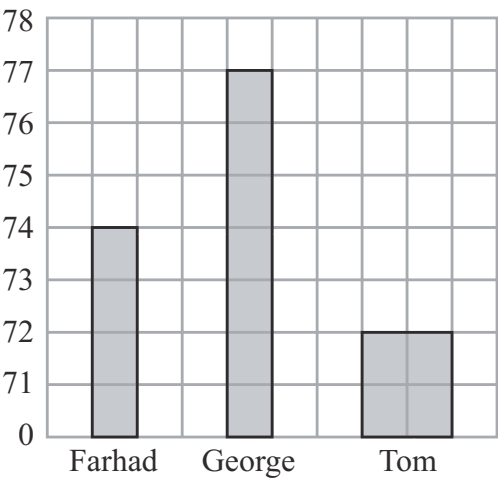**(Total for Question   is 6 marks)**

5. Farhad, George and Tom each did a test.

Here are their marks for the test.

Farhad	74
George	77
Tom	72

George drew this bar chart to show the marks they got.
The bar chart is **not** fully correct.

Write down **two** things that are wrong with George's bar chart.

1 Bars are not the same width ✓

2 Y-axis has no label (should be labelled mark) ✓

(Total for Question   is 2 marks)

6. The table gives information about the number of goals scored by each of three teams.

Total = 120

Team	Number of goals
City	50
Rovers	45
United	25

angle $x = \dfrac{numa}{Total} \times 360°$

Draw an accurate pie chart for this information.

City: $\dfrac{50}{120} \times 360° = 150°$ ✓₁

Rovers: $\dfrac{45}{120} \times 360° = 135°$

United: $\dfrac{25}{120} \times 360° = 75°$ ✓₂

United 75° 150° - City Rovers 135° ✓3

(Total for Question   is 3 marks)

7. The graph shows some information about car production in the UK over eight years.

Car production (millions)
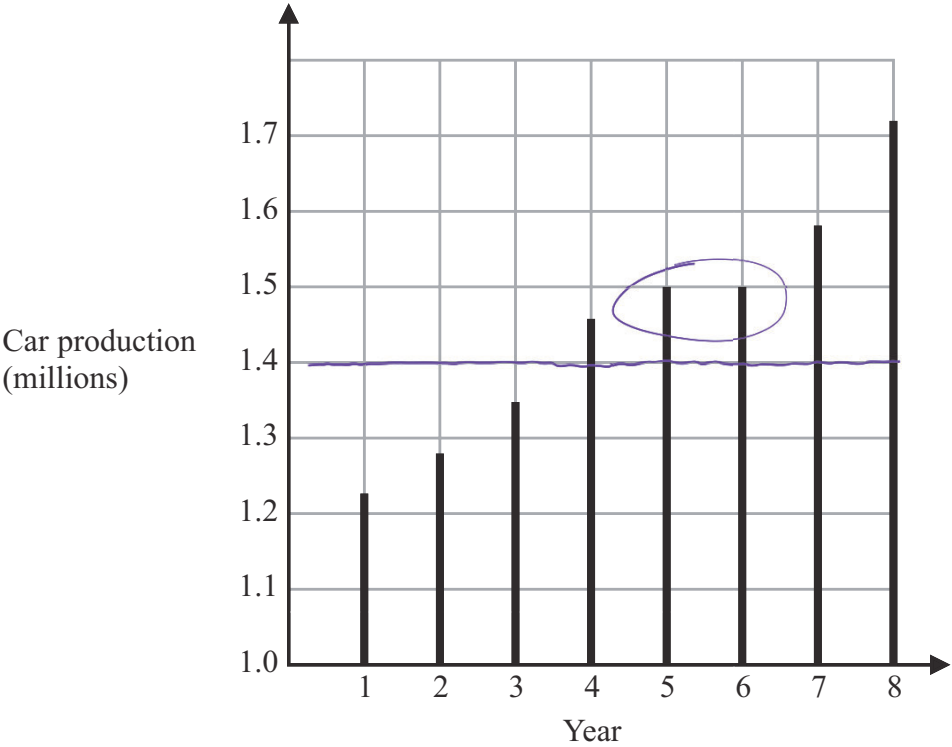
(a) For how many of these years was car production more than 1.4 million?
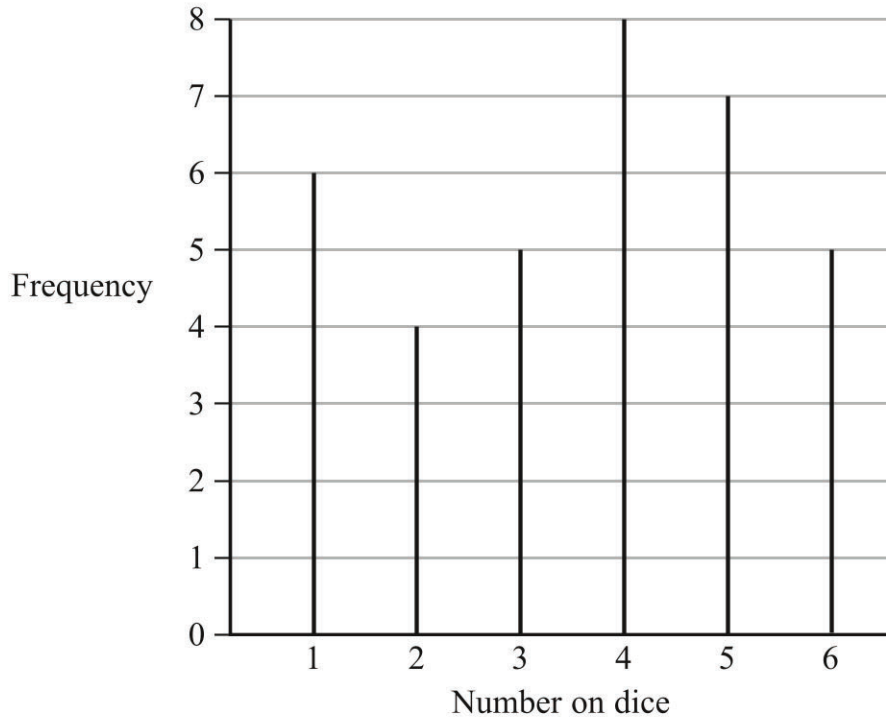
5 ✓

(1)

(b) In which two years was car production the same?

5 , 6 ✓

(1)

(Total for Question   is 2 marks)

8. 5 students throw a dice.
   They each throw the dice the same number of times.

   The diagram gives information about the number of times the dice lands on each number.

Work out how many times each student throws the dice.

Find out how many times the dice is rolled in total

Total Roles = 6 + 4 + 5 + 8 + 7 + 5 = 35 ①

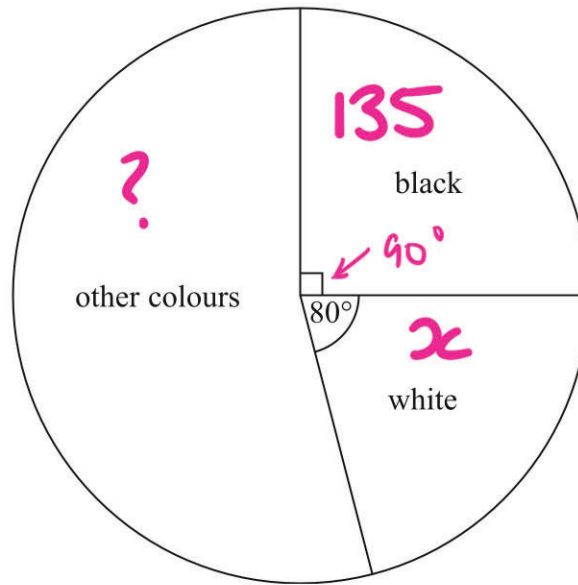Between 5 students dice rolled 35 times , Because each
                                        ✓ role same number
Each student rolls dice $\frac{35}{5}$ = 7 times   of times

.... 7 times ① ....

9.   The pie chart gives information about the colour of each car in a car park.

There are 135 black cars in the car park.

(a) Work out the number of white cars in the car park.

$$90° = 135 \text{ cars}$$

$\div 90 \Big\downarrow \qquad 1° = 1.5 \text{ cars} \qquad \Big\downarrow \div 90 \quad ②$

$\times 80 \Big\downarrow \qquad 80° = 120 \text{ cars} \qquad \Big\downarrow \times 80$

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ ①
$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ 120 white cars
$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ (3)

There are 50 grey cars in the car park.

A car in the car park is picked at random.

(b) Find the probability that this car is grey.

From part a) 135 black cars, 120 white cars

From part b) 50 grey cars

Total cars → from a) $90° = 135$, so 540 total cars
$\times 4 \Big(\quad 360° = 540 \Big) \times 4$ ①

Probability car is grey $= \dfrac{50}{540}$

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ $\dfrac{50}{540}$ ①
$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ (2)