BAR CHARTS

Pearson Edexcel - Thursday 4 June 2020 - Paper 2 (Calculator) Foundation Tier
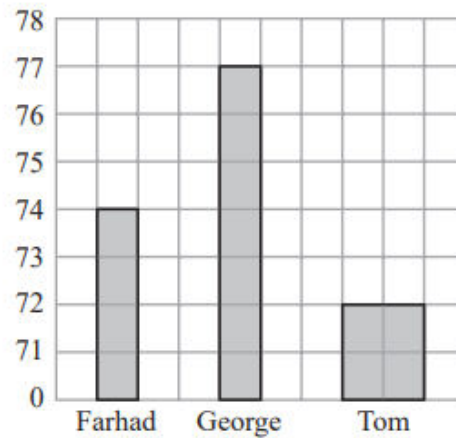
1.

7 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.

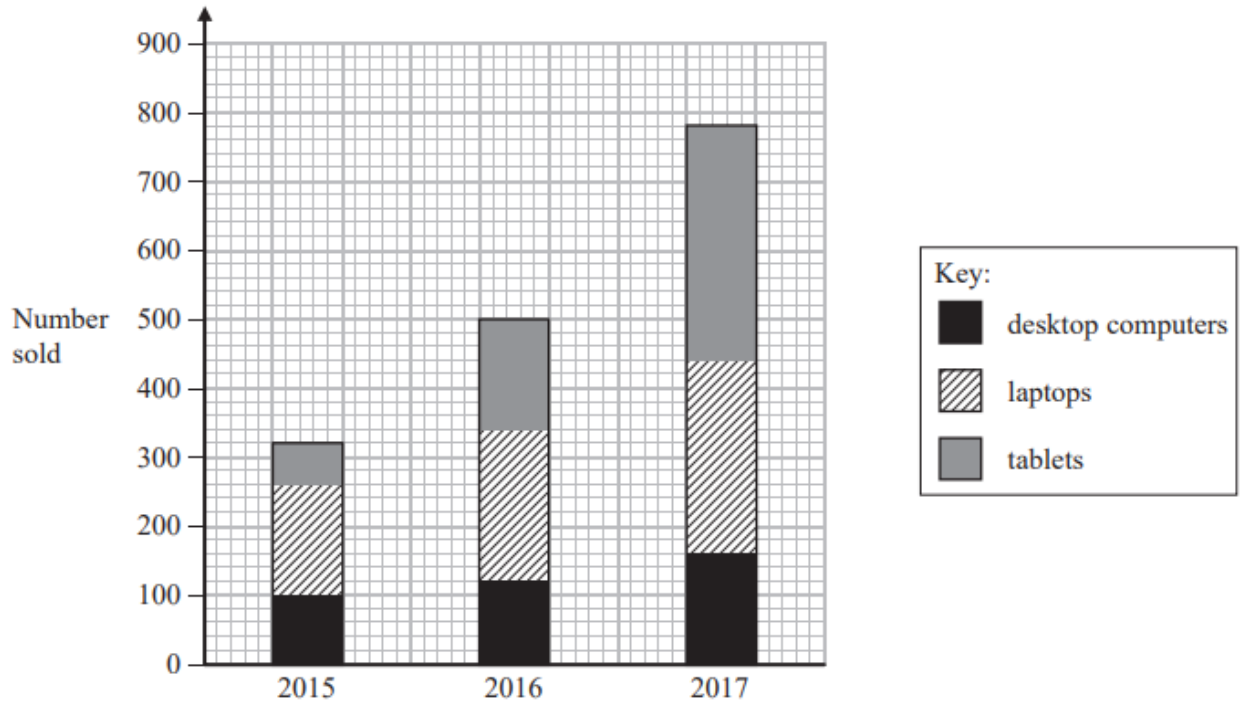1 ....

....

....

2 ....

....

....

(Total for Question 7 is 2 marks)

2.

12 A shop sells desktop computers, laptops and tablets.

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

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

....

(1)

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

....

(3)

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

....

....

....

(2)

Alex says,

"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."

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

....

....

....

(1)

(Total for Question 12 is 7 marks)

3.

14 Some people were asked if they liked swimming or cycling or running.

The table shows the results for the males and the results for the females.

	Swimming	Cycling	Running
Male	2	6	4
Female	8	5	5

(a) On the grid, draw a bar chart to show this information.
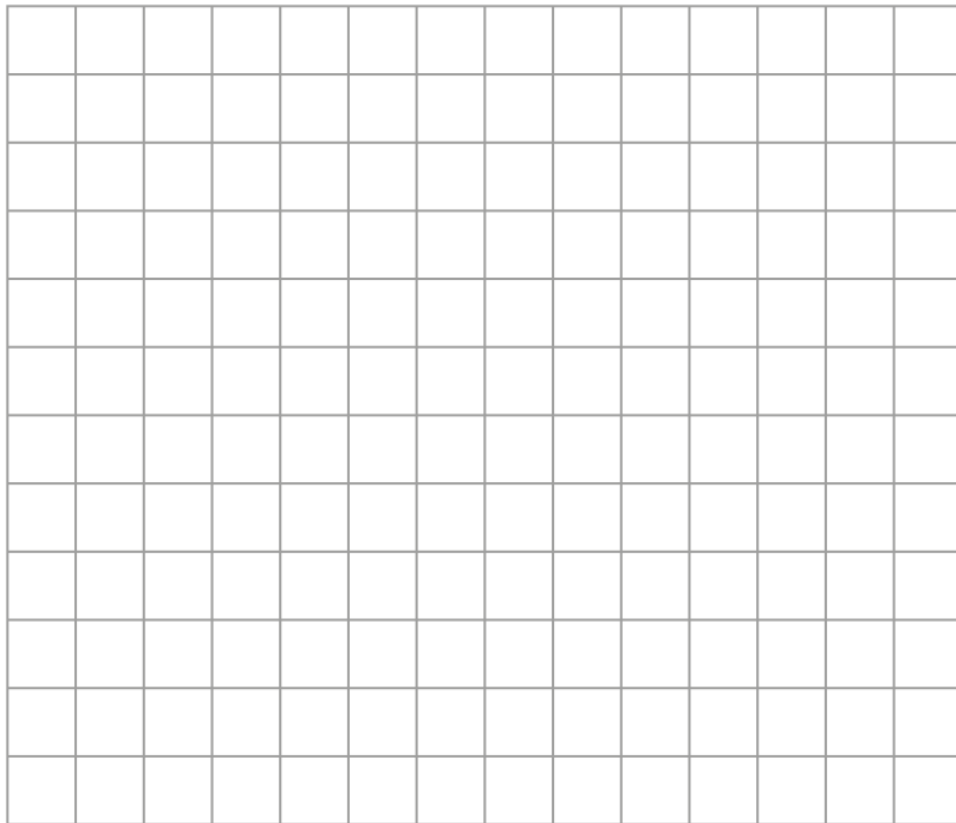
(4)

(b) Work out the percentage of the 30 people that are female.

.... %

(2)

(Total for Question 14 is 6 marks)

4.

7 The table shows information about the sports some students like best.

	Hockey	Tennis	Football	Golf
Boys	3	8	15	9
Girls	6	14	7	1

Draw a suitable diagram or chart for this information.
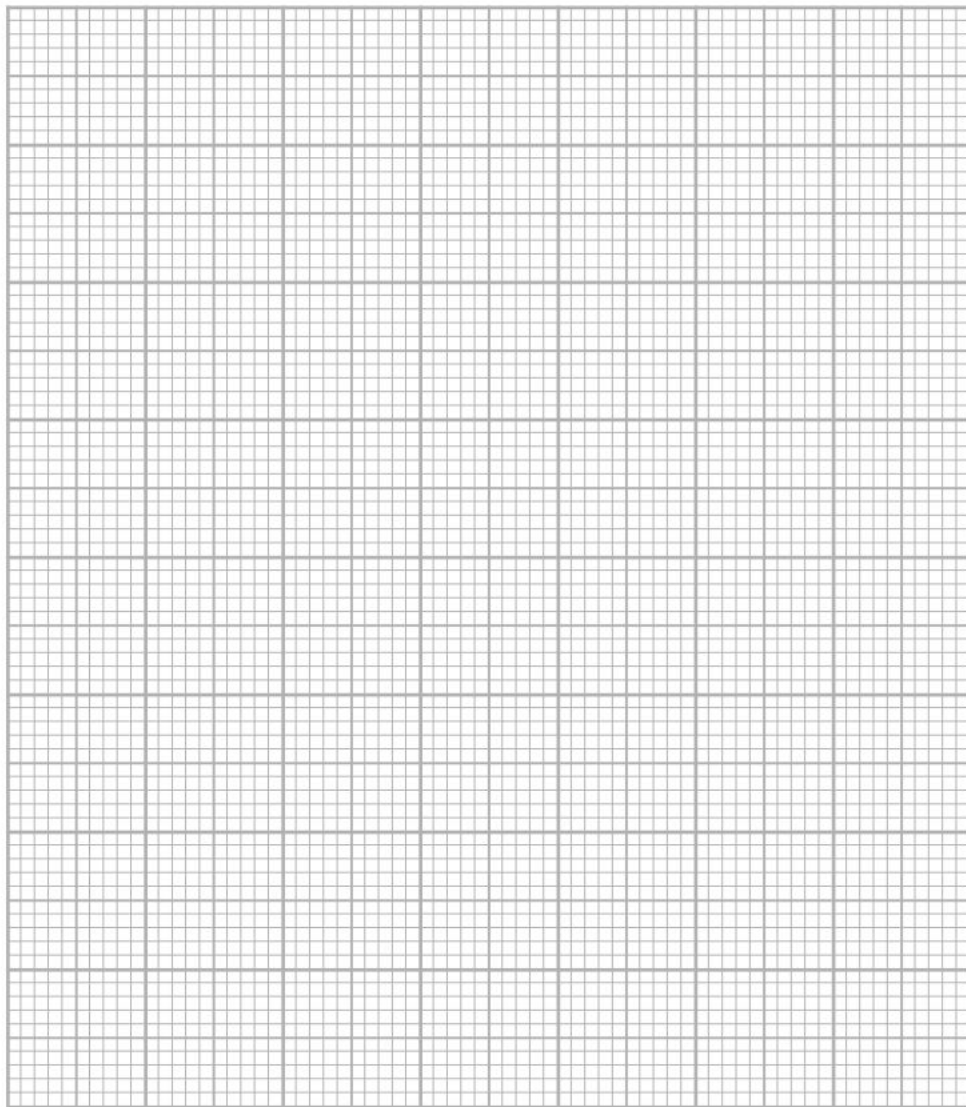
(Total for Question 7 is 4 marks)

5.

1 Reece asked some friends what type of programme they watch most on television.
    The bar chart shows some of his results.
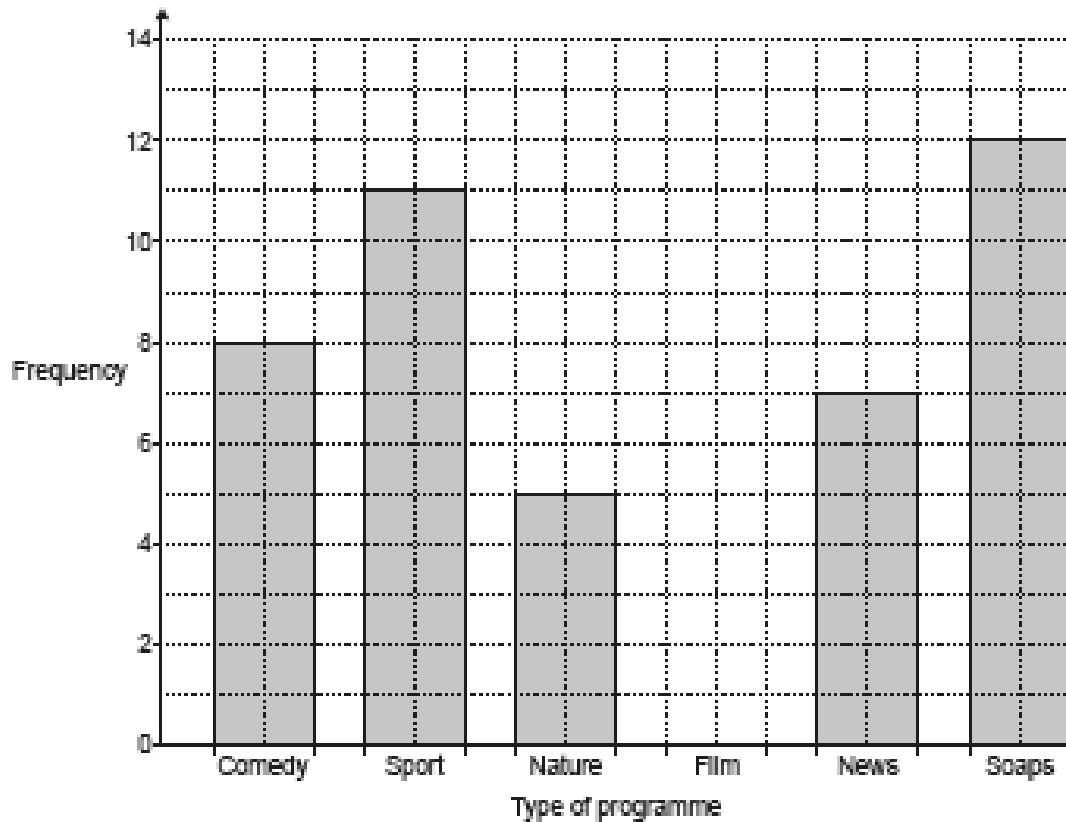
(a) 10 people answered Film.

    Complete the bar chart to show this information.   [1]

(b) Complete these sentences.

    (i) .... was chosen by the most people.   [1]

    (ii) .... people chose News.   [1]

    (iii) .... fewer people chose Nature than Comedy.   [1]

6.

7   This is Nadia's bar chart to show the number of goals scored by four teams during November.

Number of goals scored in November
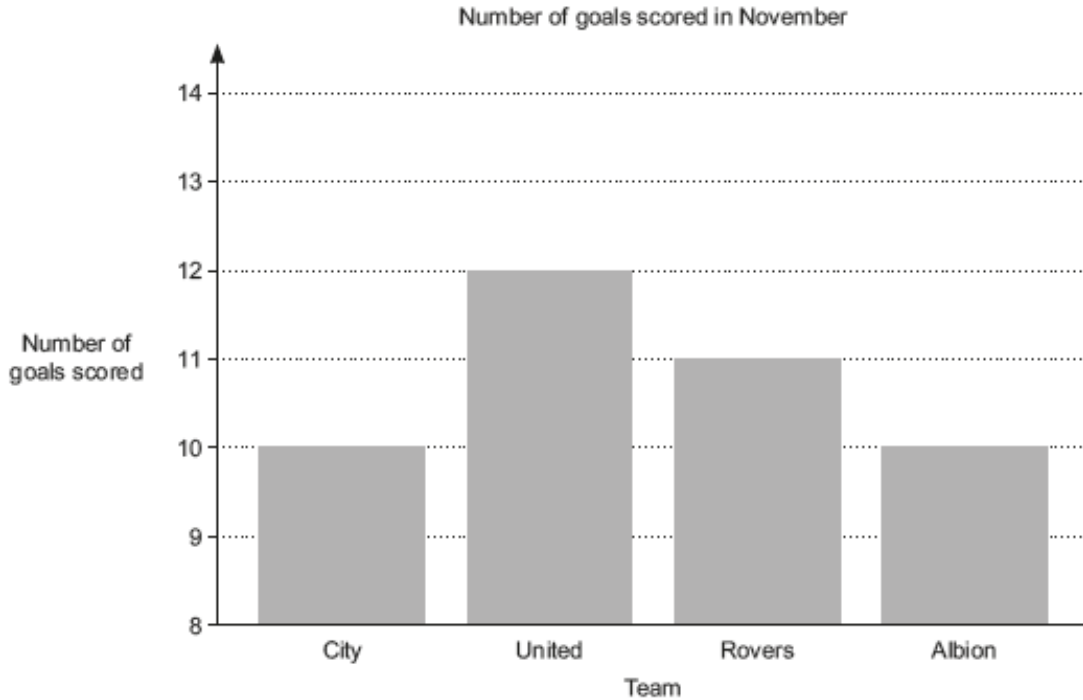
(a) Blake says

Nadia's bar chart shows that United scored twice as many goals as City.

Is Blake correct?
Give a reason for your answer.

.... because ....

.... [1]

(b) Give one way in which Nadia can improve her bar chart.

....

.... [1]

(c) Kareem says

Out of these four teams, United achieved the highest mean number of goals per game
during November.

What assumption has Kareem made?

....

.... [1]

7.

6 30 students each own one pet.
The pie chart shows the proportion of each type of pet owned by the 30 students.
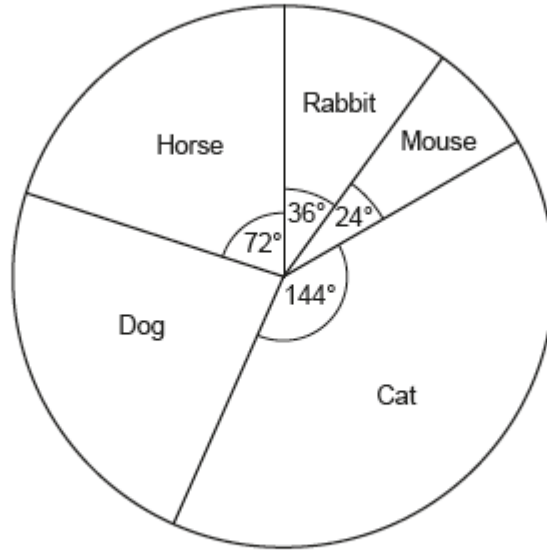
(a) Which type of pet is the mode?

(a) .... [1]

(b) Use the information in the pie chart to complete this bar chart.

[3]
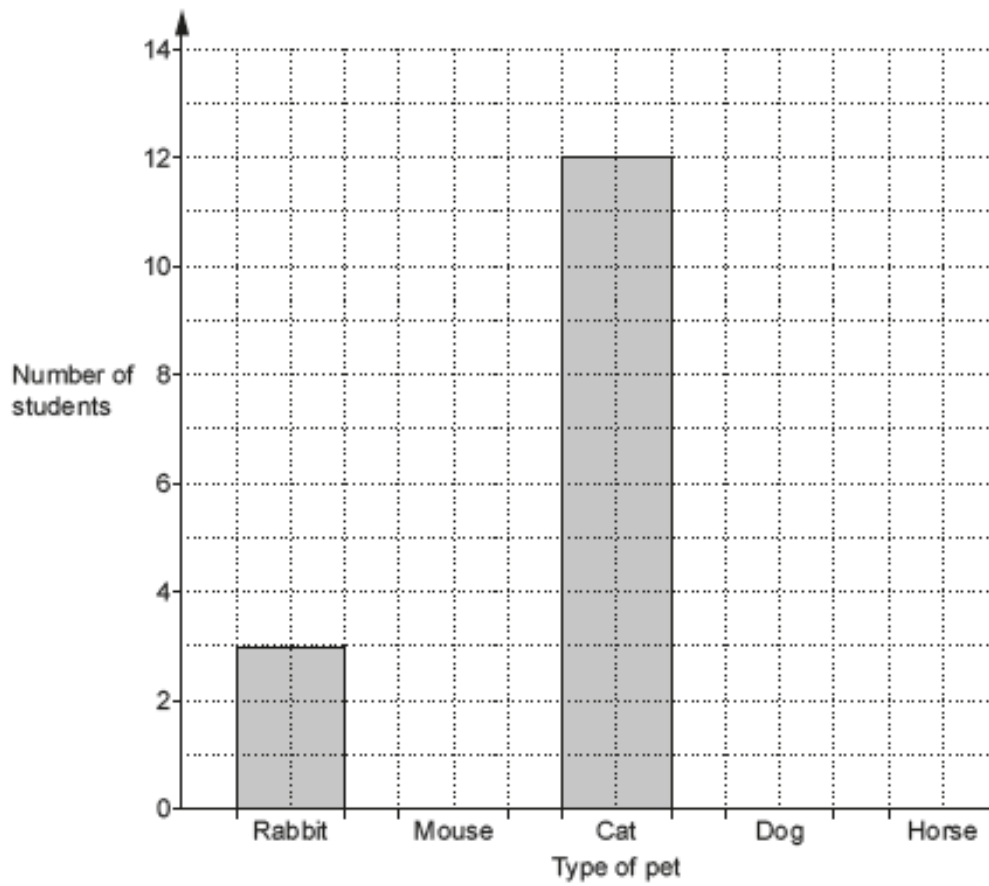
8.

1 Jodie asked some people to choose from six countries where they would most like to go on holiday. The bar chart shows her results for five of the countries.
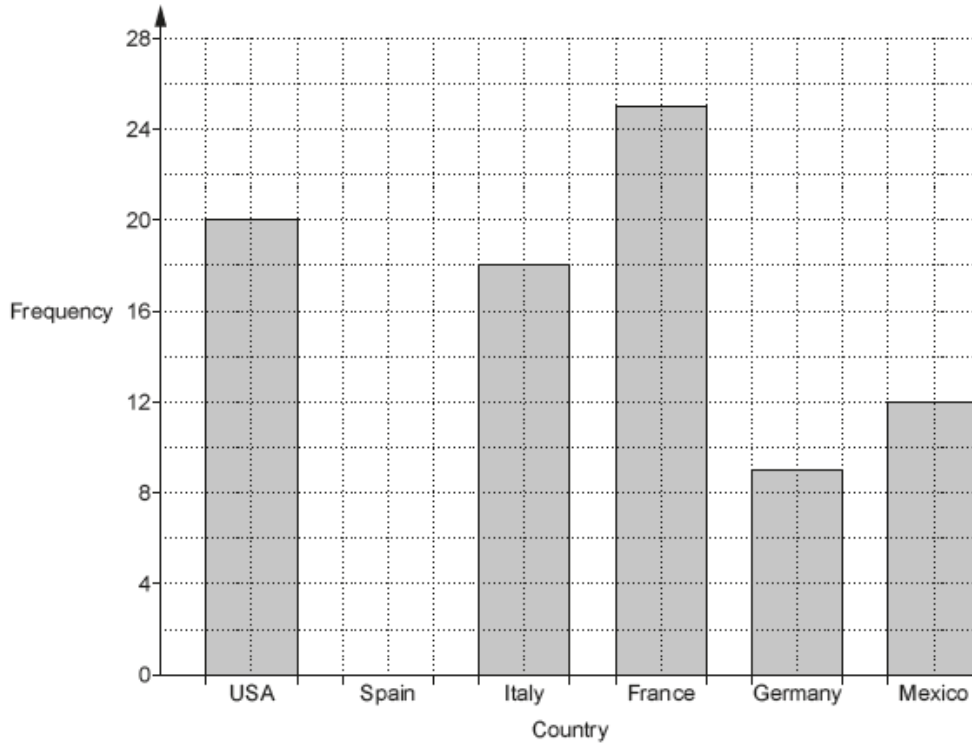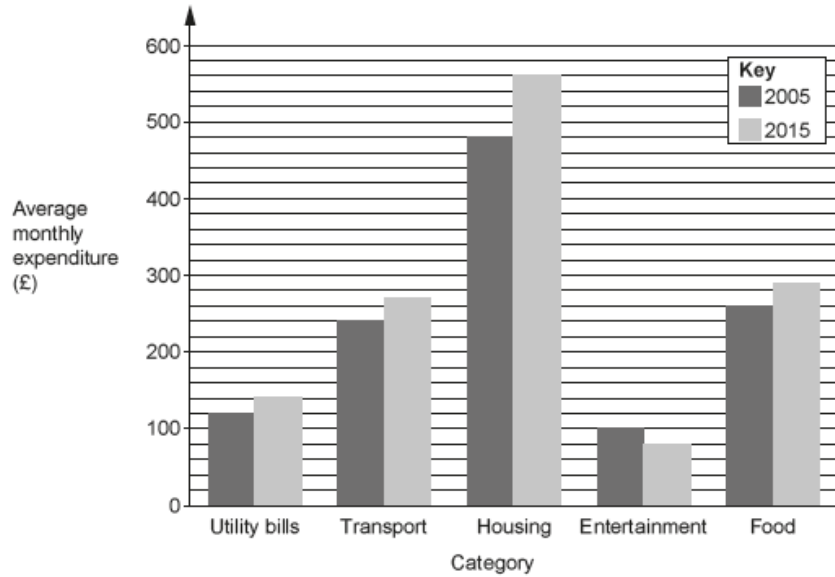

(a) 14 people answered Spain.

Show this information on the bar chart. [1]

(b) Complete these sentences.

(i) .... was chosen by the fewest people. [1]

(ii) .... people chose France. [1]

(iii) .... **more** people chose Italy than Mexico. [1]

9.

6 This bar chart shows the average monthly expenditure, by category, of households in a particular town in 2005 and 2015.

(a) In which category was there a decrease in the average monthly expenditure between 2005 and 2015?

(a) .... [1]

(b) How much more was the average monthly expenditure on housing in 2015 than in 2005?

(b) £ .... [2]

(c) The total average monthly expenditure in 2005 was £1200.

What percentage of this was spent on transport?

(c) .... % [3]

10.

8 Sam and Max work in a shop from Monday to Friday.

Sam draws a graph to show the number of TVs they each sell.
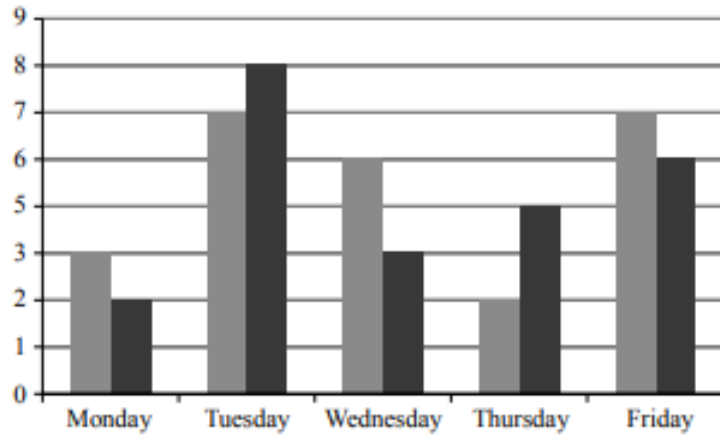
Write down **three** things that are wrong with this graph.

1 ....

....

2 ....

....

3 ....

....

(Total for Question 8 is 3 marks)

11.

6 The bar chart gives information about the numbers of students in the four Year 11 classes at Trowton School.
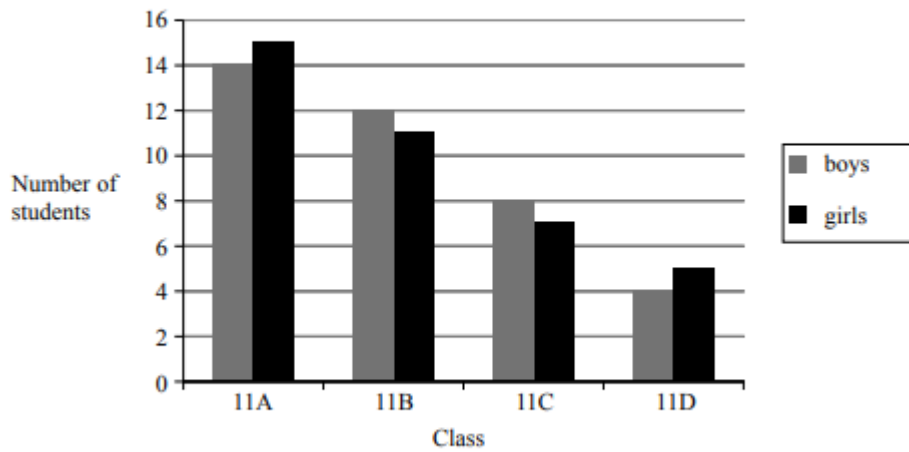
(a) What fraction of the students in class 11A are girls?

....

(2)

Shola says,

"There are more boys than girls in Year 11 in Trowton School."

(b) Is Shola correct?
You must give a reason for your answer.

....

....

(2)

The pie chart gives information about the 76 students in the same four Year 11 classes at Trowton School.

Number of students in Year 11 of Trowton School
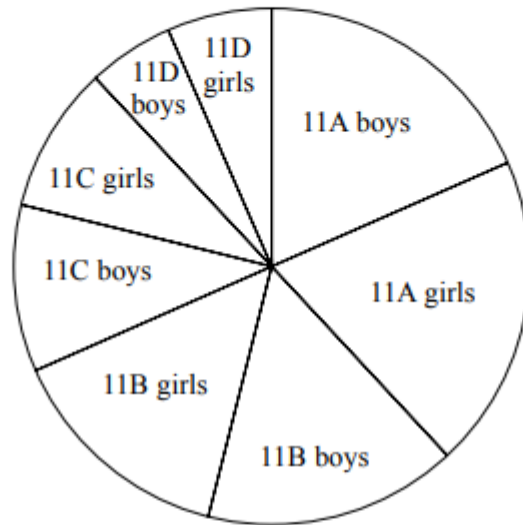
Tolu says,

"It is more difficult to find out the numbers of students in each class from the pie chart than from the bar chart."

(c) Is Tolu correct?
You must give a reason for your answer.

....

....

(1)

(Total for Question 6 is 5 marks)

12.

1 George recorded all the different types of tree in a wood.

(a) His results are shown in this table.

Complete the table.

Type of tree	Tally	Frequency
Alder	⊥⊦⊦⊥ III	8
Beech	⊥⊦⊦⊥ ⊥⊦⊦⊥ ⊥⊦⊦⊥	15
Oak	⊥⊦⊦⊥ ⊥⊦⊦⊥ ⊥⊦⊦⊥ III	18
Rowan	⊥⊦⊦⊥ I	
Other		13

[2]

(b) Complete the bar chart to show George's results.

Type of tree
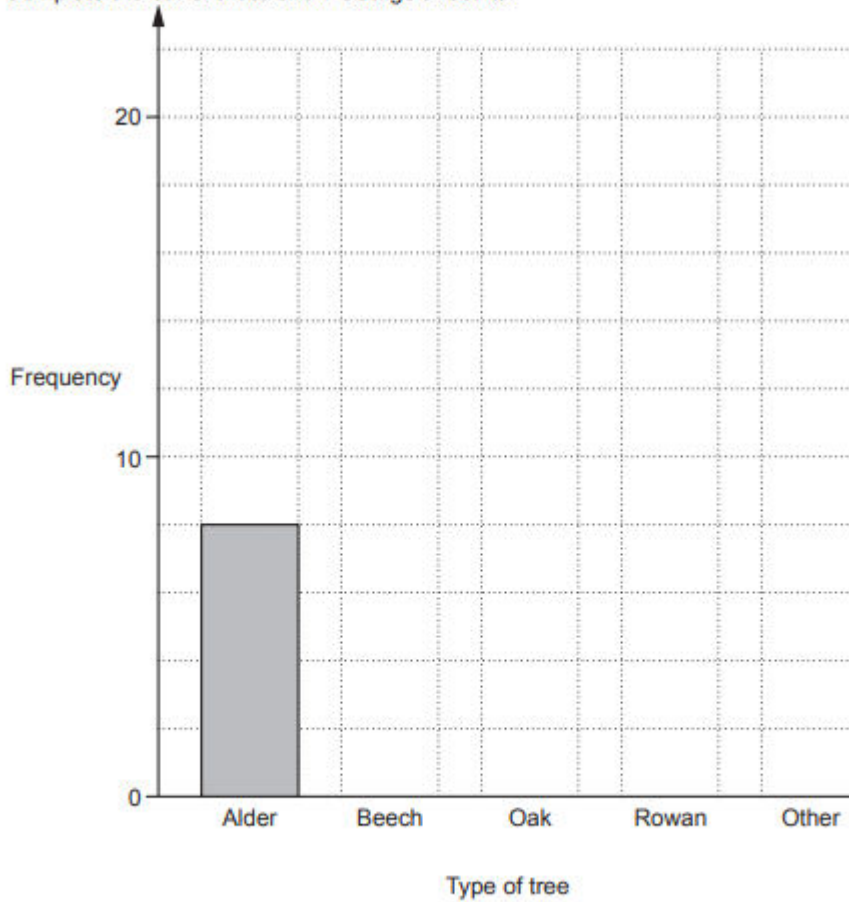
[2]

(c) George found 60 trees altogether in the wood.

What percentage of the trees were oak trees?

(c) .... % **[2]**

13.

8   Here is some information, by ticket type, about the number of people visiting a cinema one week.

Key: ⊞ represents 40 people

Adults	⊞ ⊞ ⊞ ⊟
Students	⊞ ⊞ ⊞ ⊞ ⊞ ⊞
Children	⊞ ⊞ ⊞ ⊞

8 (a)   How many children visited the cinema?

[1 mark]

_____

_____

Answer _____

8 (b)   How many **more** students than adults visited the cinema?

[2 marks]

_____

_____

Answer _____

8 (c)   A bar chart is drawn to show the number of people visiting the cinema one month.

Ticket type	Number of people
Adults	1600
Students	3000
Children	1800

People visiting the cinema
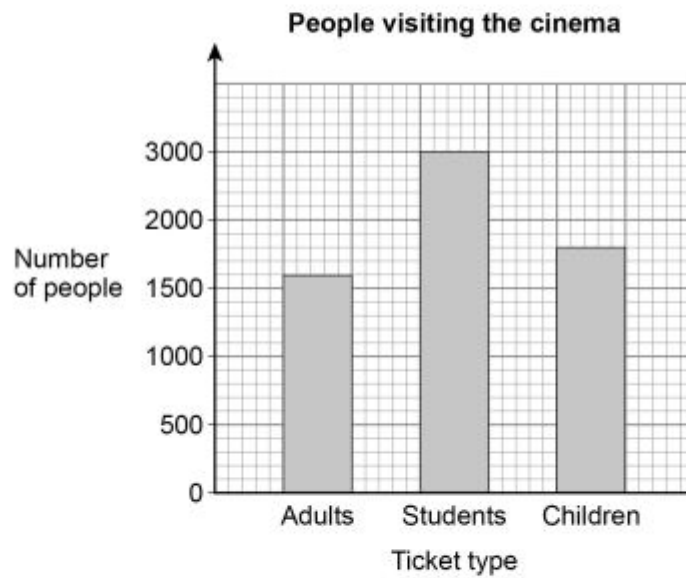
Give **one** criticism of the bar chart.

[1 mark]

_____

_____

14.

17   A record was kept of the number of days that 25 students were absent one term.
The chart represents the results.

Number of
students

Number of days absent
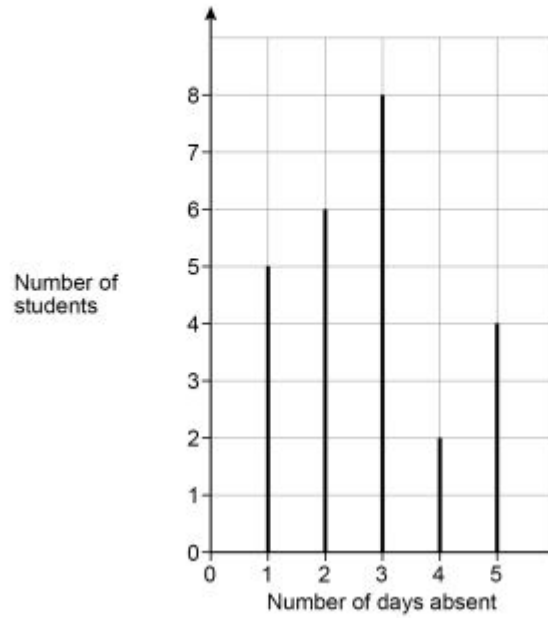
17 (a)   Work out the mean number of days absent.

[3 marks]

_____

_____

_____

_____

_____

_____

_____

_____

_____

Answer _____

17 (b)   One of the students is chosen at random.

Work out the probability that the student was absent for **less than** 4 days.

[2 marks]

Answer _____

15.

8   A game is played 50 times.

The vertical line chart shows the winning scores.
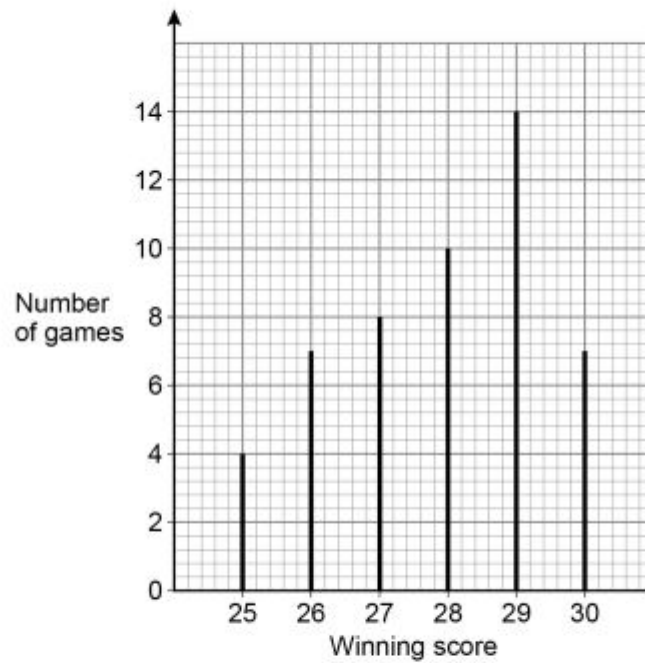
8 (a)   Write down the mode.

[1 mark]

Answer _____

The game is played again.

8 (b)   Use the chart to estimate the probability that the winning score is 25

[1 mark]

Answer _____

8 (c)   Use the chart to estimate the probability that the winning score is 27 or more.

[2 marks]

_____

_____

_____

Answer _____

16.

11 On a journey, Laura sees 30 vehicles.

Each vehicle is a car, a van or a lorry.

She draws this bar chart.

Vehicles seen
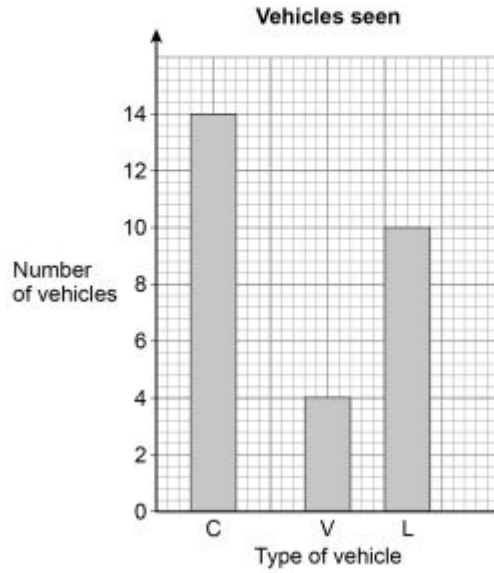
Make **two** criticisms of her bar chart.

[2 marks]

Criticism 1 _____

_____

_____

_____

Criticism 2 _____

_____

_____

_____

17.

9   The table shows the number of messages Sam received each day for five days.

	Messages	
	Number of emails	**Number of texts**
Monday	12	5
Tuesday	8	6
Wednesday	10	3
Thursday	6	6
Friday	12	4

9 (a)   Sam draws a composite bar chart to represent the data.

He has drawn the bar for Monday.

Messages received
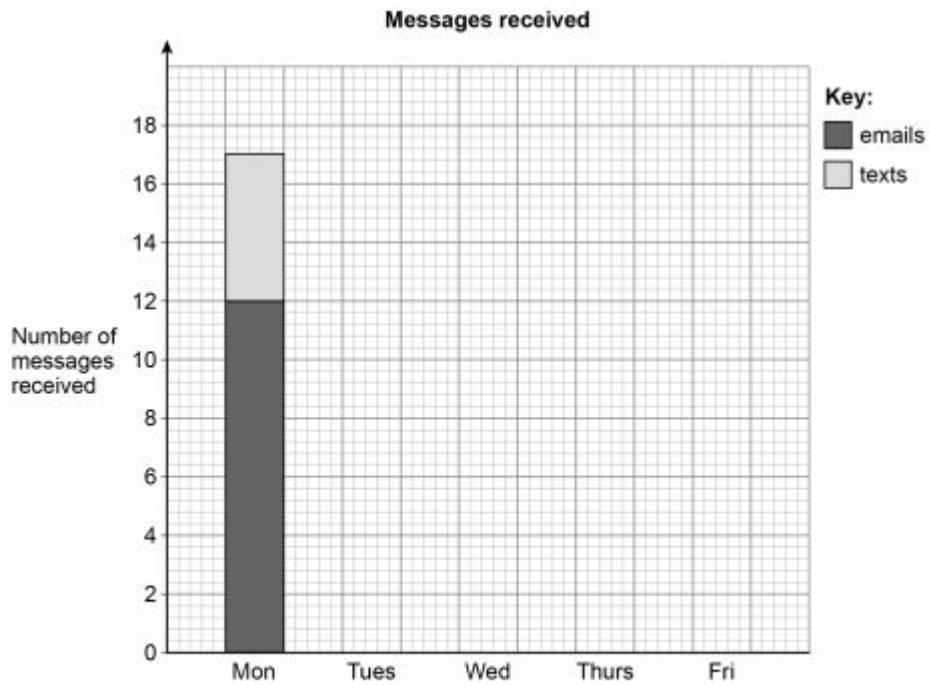
Complete the chart.

[2 marks]

9 (b) In total, what fraction of the messages were emails?

Give your answer in its simplest form.

[3 marks]

_____

_____

_____

_____

_____

_____

_____

Answer _____

18.

9   A company sells houses.

The line graph shows the number sold per week for 30 weeks.
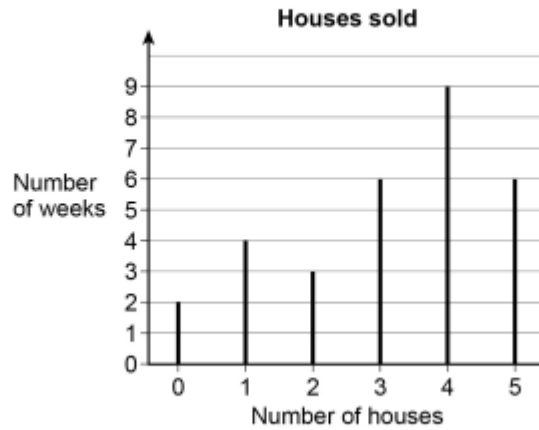
Houses sold

9 (a)   Work out the range of the number of houses sold per week.

[2 marks]

_____

_____

Answer _____

9 (b)   Work out the median number of houses sold per week.

[2 marks]

_____

_____

Answer _____

9 (c) The company sells three houses.

The prices are £185 000, £239 000 and £136 000

The company earns 2% commission on each house.

In total, how much commission does the company earn on these three houses?

[3 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Answer £_____

19.

7   The diagram shows the scores given by judges during a television show.
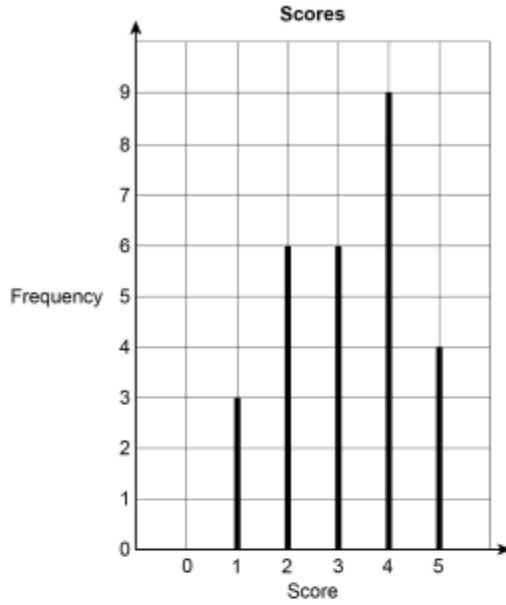
7 (a)   Which score was the mode?

[1 mark]

Answer _____

7 (b)   There were 4 judges.

Each judge gave one score in each round.

How many rounds were there?

[3 marks]

_____

_____

_____

Answer _____

20.

6   The table shows information about the birds in a garden.

Bird	Number
Robin	2
Sparrow	5
Wren	3
Lark	1

Draw a bar chart to show the information.

[3 marks]
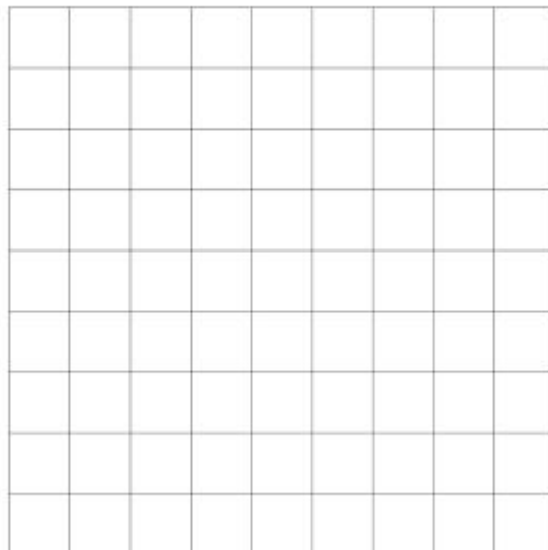
21.

8   Here is information about the goals scored in some hockey games.

Each game has four quarters.
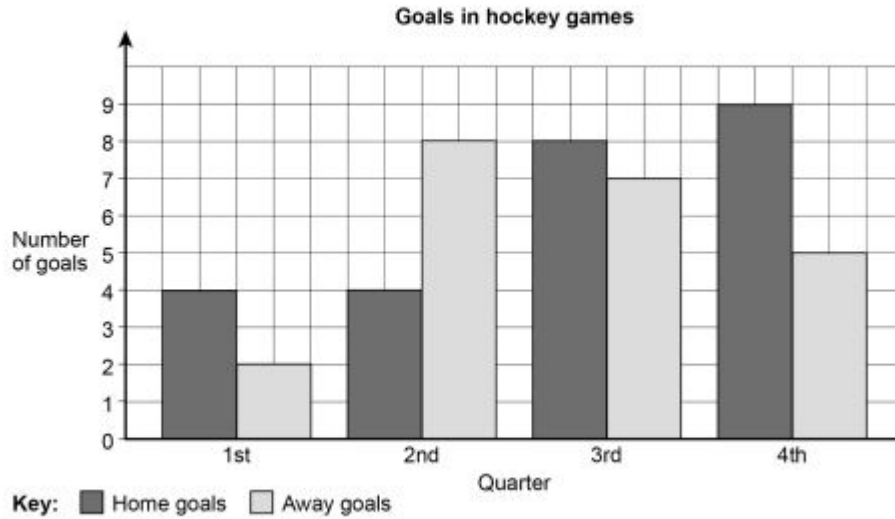
8 (a)   Which quarter was the mode for **away** goals?

Circle your answer.

[1 mark]

1st   2nd   3rd   4th

8 (b)   There were 10 games.

Work out the mean number of goals per game.

[2 marks]

_____

_____

_____

Answer _____

8 (c)   In total, how many **more** home goals were scored than away goals?

[2 marks]

_____

_____

_____

_____

_____

Answer   _____

8 (d)   Rob says,

"More home teams **must** have won because there were more home goals."

Is he correct?

Give a reason for your answer.

[1 mark]

_____

_____

_____

22.

18   The table shows the sales of food and drink for three days at a market stall.

Day	Sales of food (£)	Sales of drink (£)
Thursday	34	16
Friday	22	48
Saturday	46	28

Hannah uses this information to draw a composite bar chart.

Sales of food and drink

Day
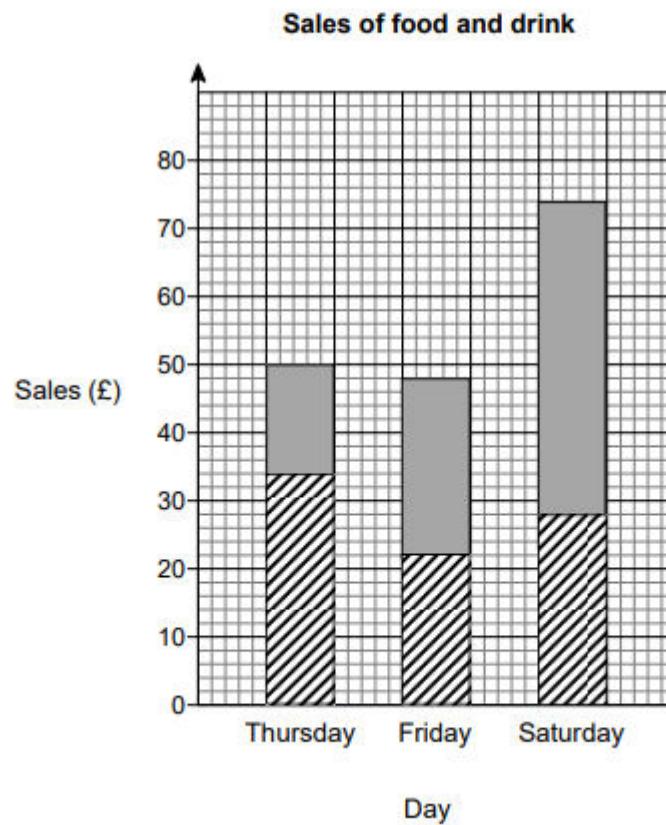
Write down **three** different mistakes that she has made.

[3 marks]

Mistake 1 _____

_____

Mistake 2 _____

_____

Mistake 3 _____

_____

23.

22 The diagram shows information about the scores of Class 3A in a spelling test.
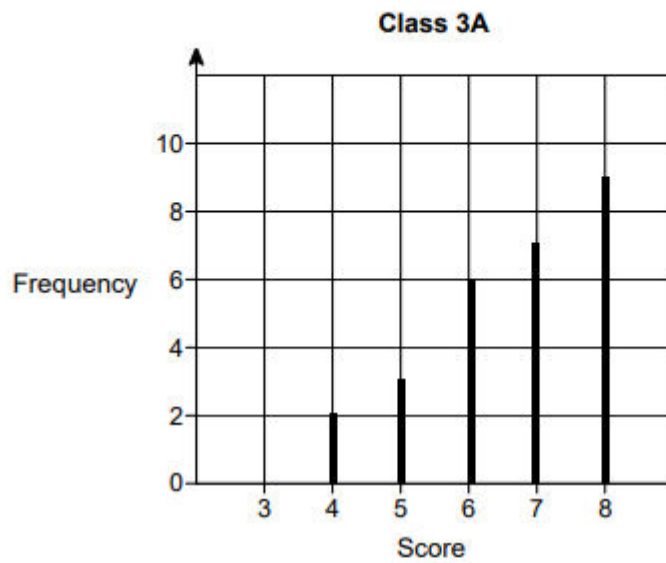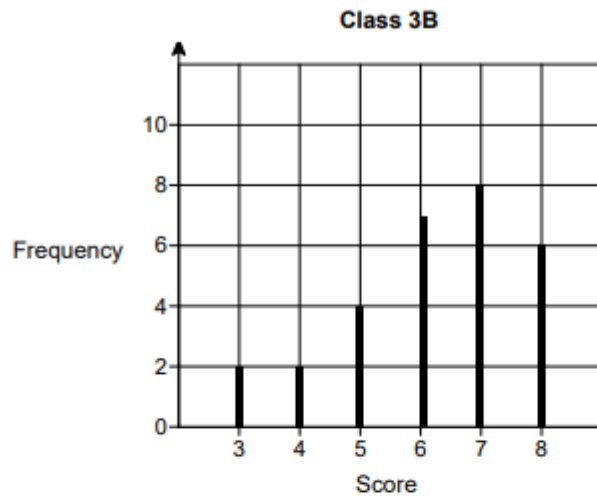
Class 3A

22 (a) A student is chosen at random from Class 3A.

Work out the probability that the student's score was the **mode** for the class.

[3 marks]

_____

_____

_____

Answer _____

The diagram shows information about the scores of Class 3B in the same test.

Class 3B

22 (b) Show that Class 3A had more **consistent** scores than Class 3B.

Use the data from both diagrams.

[2 marks]

_____

_____

_____

22 (c) Lucy is one of the 29 students in **Class 3B**.

Her score was the same as the **median** score for her class.

Work out her score.

[2 marks]
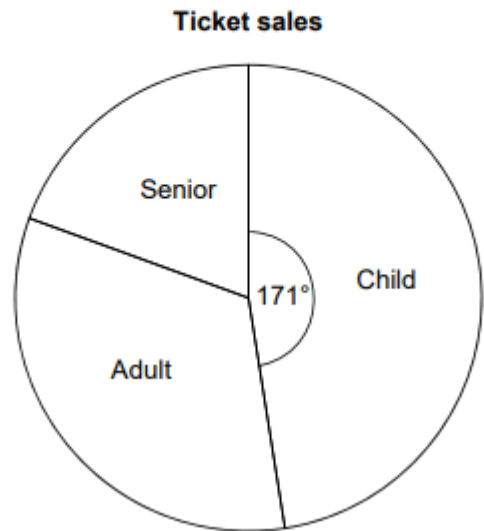
_____

_____

Answer _____

24.

12 The pie chart shows information about the sales of 800 tickets.

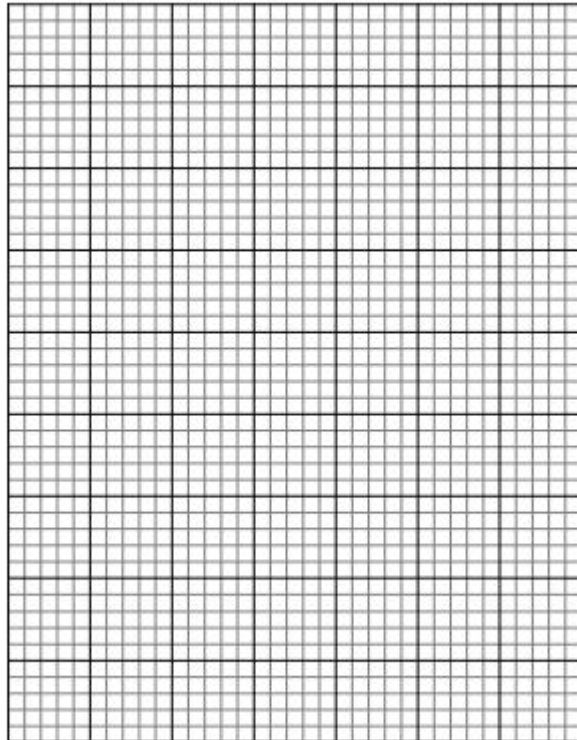There were twice as many adult ticket sales as senior ticket sales.

Ticket sales

Not drawn
accurately

12 (a) Show that there were 140 senior ticket sales.

[3 marks]

_____

_____

_____

_____

_____

12 (b) Draw a bar chart on the grid to represent the child, adult and senior ticket sales.

[4 marks]

_____

_____

_____

_____

_____

Ticket sales

25.

7   Zayn records his weekly sales.
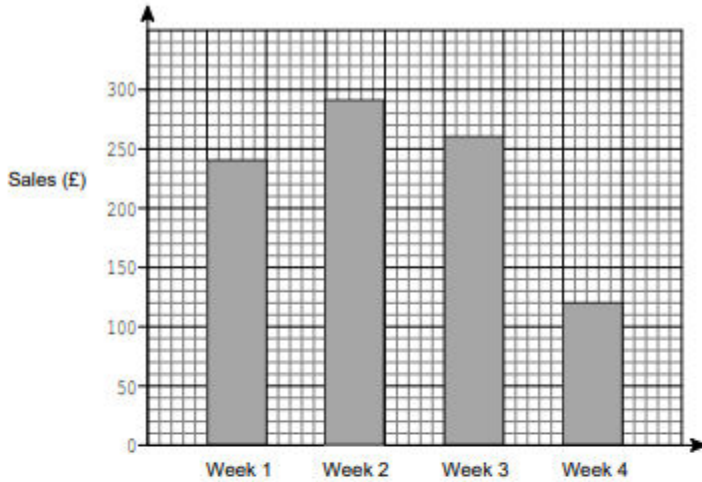
Every week his costs are £87.50

7 (a)   Work out his profit in Week 1

[2 marks]

_____

_____

Answer £ _____

7 (b)   His sales in Week 4 were half of his sales in Week 1

Zayn says,

"This means that my profit in Week 4 was half of my profit in Week 1"

Is he correct?

You **must** show your working.

[2 marks]

_____

_____

_____