

1MA1 Foundation themed papers: Bar charts

Write your name here			
Surname	Other names		
Centre Number		Candidate Number	
Pearson Edexcel Level 1/Level 2 GCSE (9–1)			
Mathematics			
Statistical diagrams: Bar charts			
			Paper Reference 1MA1
You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.			Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The total mark for this paper is **48**. There are **9** questions.
- Questions have been arranged in an ascending order of mean difficulty, as found by all students in the June 2017–November 2019 examinations.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

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

Here are her results.

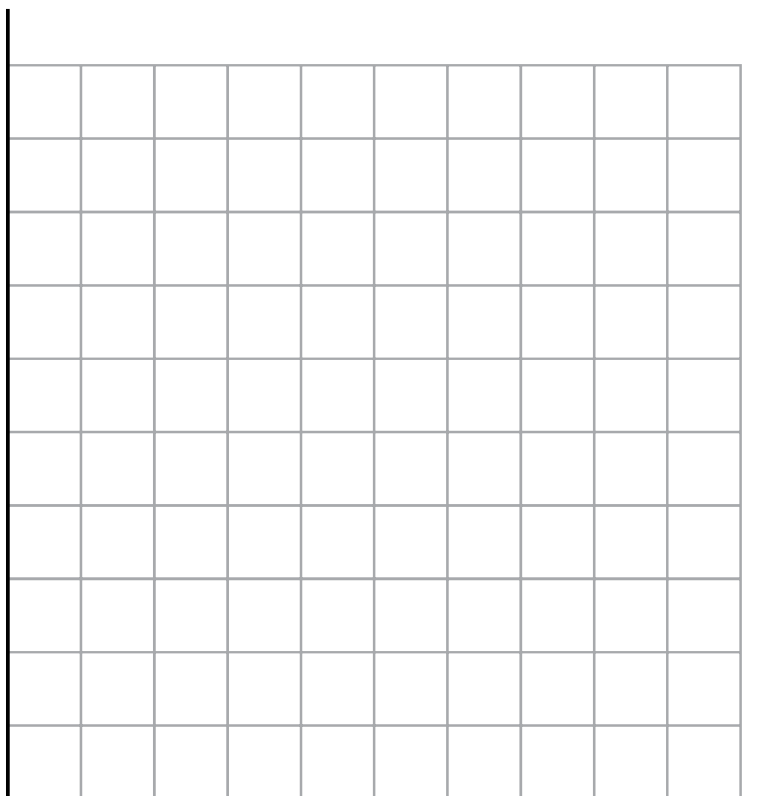
dog rabbit cat dog dog hamster
cat dog rabbit hamster cat cat
dog dog cat dog rabbit dog

(a) Complete the frequency table for this information.

Pet	Tally	Frequency
dog		
rabbit		
cat		
hamster		

(2)

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



(3)

(c) Write down the most popular pet.

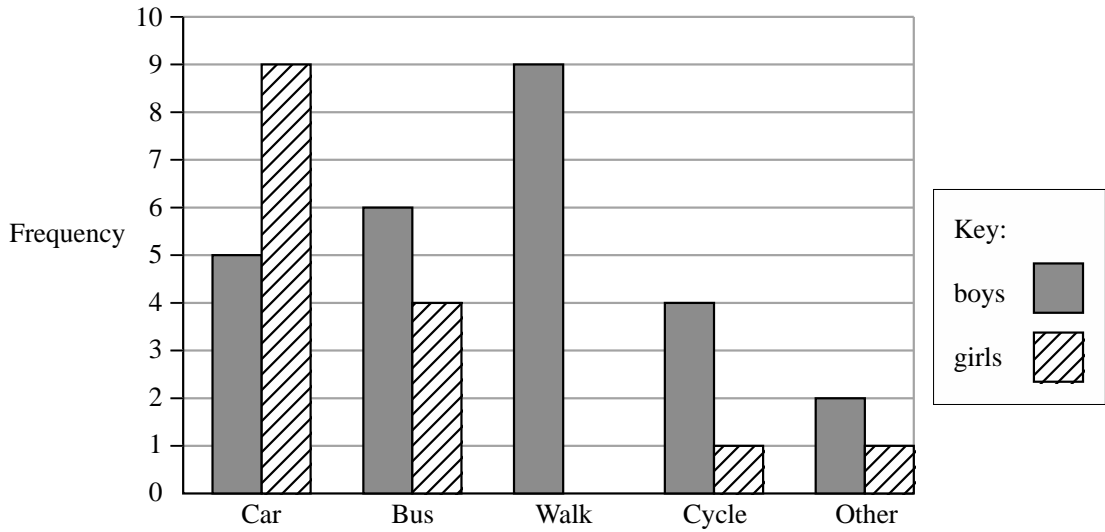
.....

(1)

(Total for Question 3 is 1 marks)

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2 A teacher asks the students in Year 6 what type of transport they use to get to school. The dual bar chart shows some of the results.



(a) What is the most popular type of transport used by the boys?

.....
(1)

7 girls walk to school.

(b) Show this information on the dual bar chart.

(1)

More of the students get to school by car than by bus.

(c) How many more?

.....
(1)

The number of students in Year 5 is the same as the number of students in Year 6.

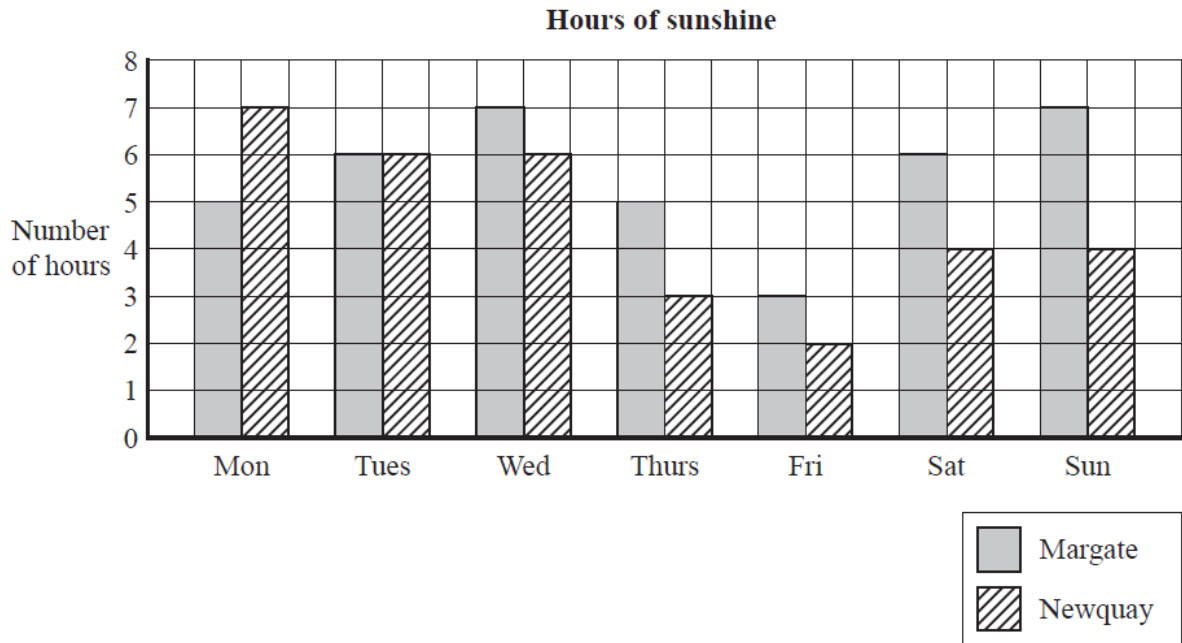
(d) What is the total number of students in Years 5 and 6?

.....
(2)

(Total for Question 2 is 5 marks)

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3 The bar chart shows the number of hours of sunshine each day last week in Margate and in Newquay.



(a) On how many days did Newquay have less than 5 hours of sunshine?

..... days

(1)

In total, Margate had more hours of sunshine than Newquay last week.

(b) How many more?

..... hours

(2)

(Total for Question 3 is 3 marks)

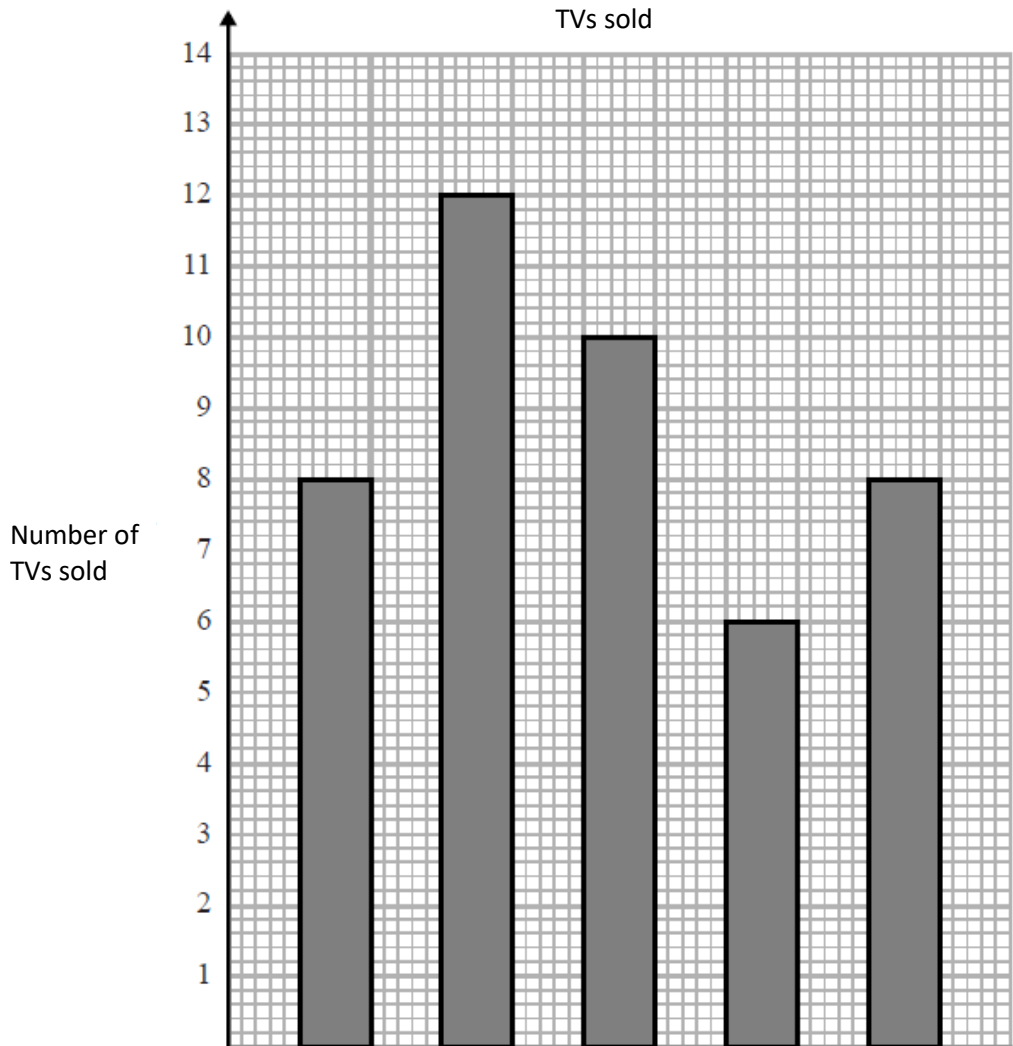
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4 The table shows the number of TVs sold in a shop on each of five days.

Day	Mon	Tue	Wed	Thu	Fri
Number of TVs sold	8	12	9	6	8

David uses this information to draw the graph below.



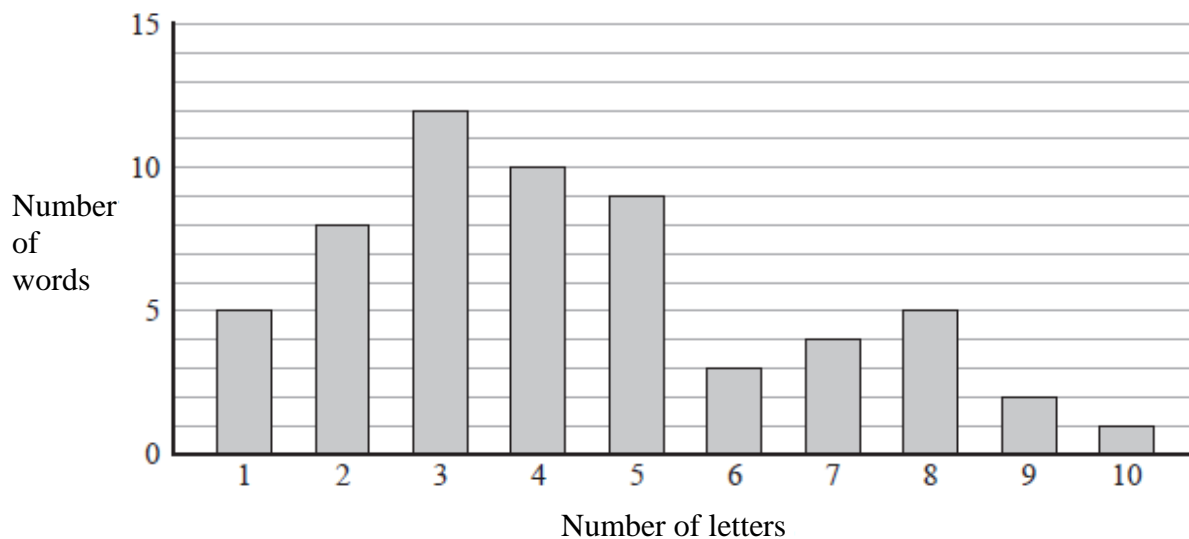
Write down **three** things wrong with this graph.

- 1
- 2
- 3

(Total for Question 4 is 3 marks)

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- 5 The bar chart shows some information about the number of letters in each word in a paragraph.



- (a) What is the modal number of letters in a word?

.....
(1)

- (b) Work out the range for the numbers of letters in a word.

.....
(2)

- (c) Work out the fraction of the words that have at least six letters.

.....
(3)

(Total for Question 5 is 6 marks)

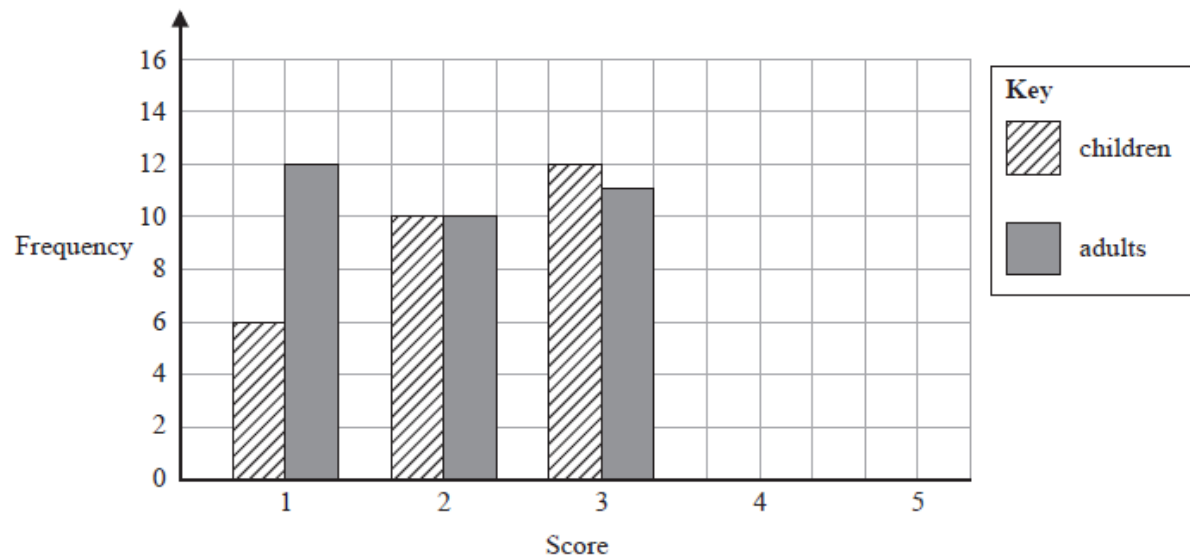
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- 6 A group of children and a group of adults gave an app a score.

1 was the lowest possible score.

5 was the highest possible score.

The incomplete bar chart shows some information about the scores.



Score	Number of children	Number of adults
4	14	6
5	10	9

- (a) Complete the bar chart for this information.

(2)

- (b) Work out the total number of adults who gave the app a score.

.....
(2)

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(c) Compare the scores given by the children with the scores given by the adults.

1.....

.....

2.....

.....

(2)

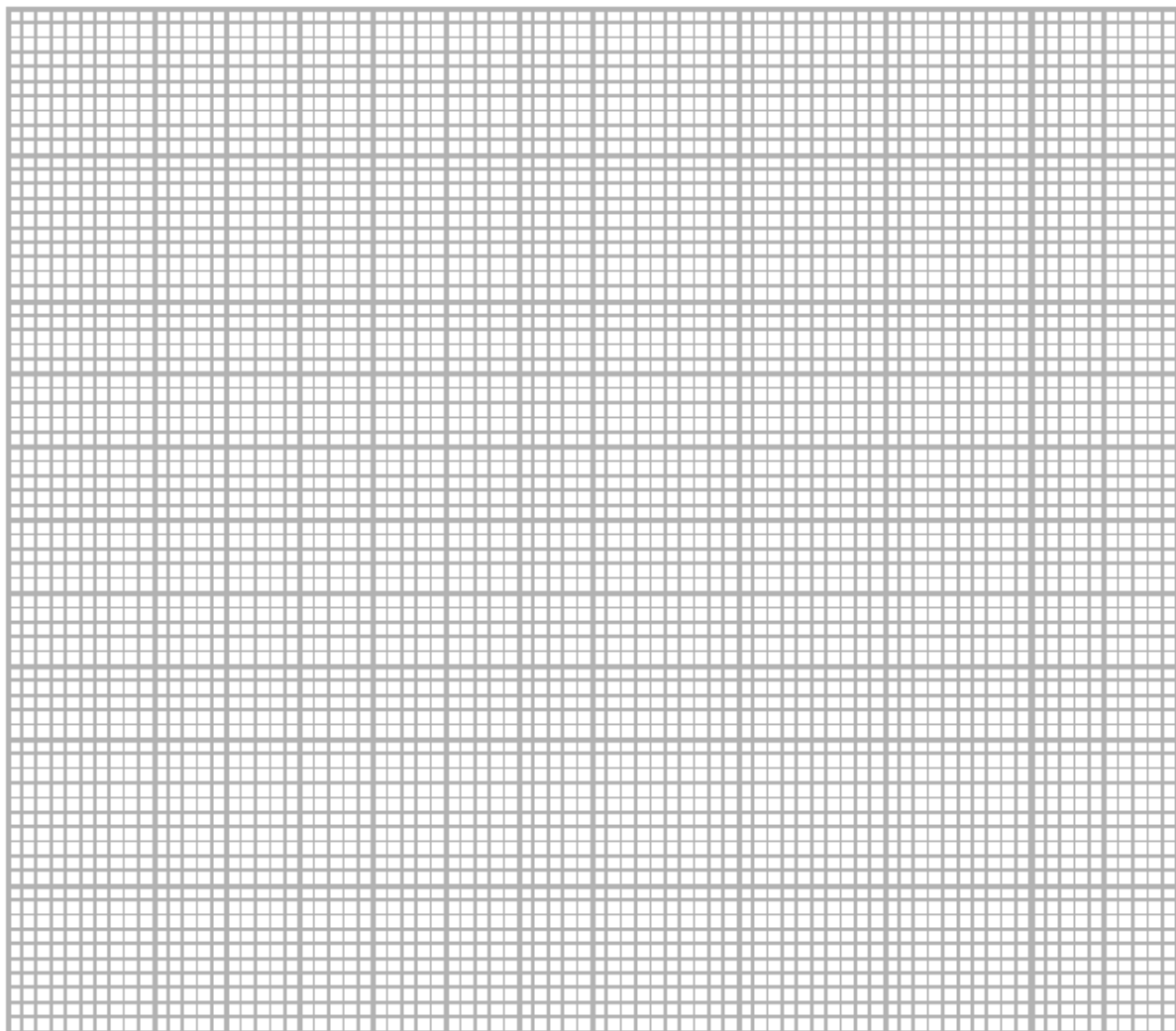
(Total for Question 6 is 6 marks)

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- 7 Bruna asked 20 students in each of Year 7 and Year 8 what pet they liked best. The table gives information about her results.

	Year 7	Year 8
Cat	7	4
Dog	8	10
Rabbit	5	6

Draw a suitable bar chart for this information.



(Total for Question 7 is 4 marks)

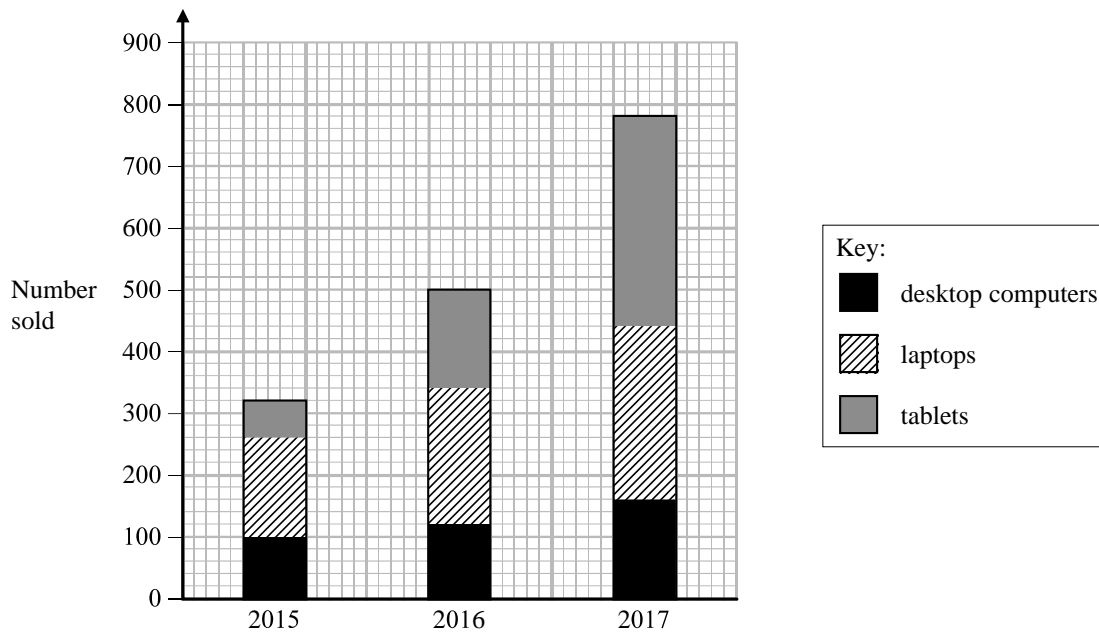
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8

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)

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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.

.....

.....

.....

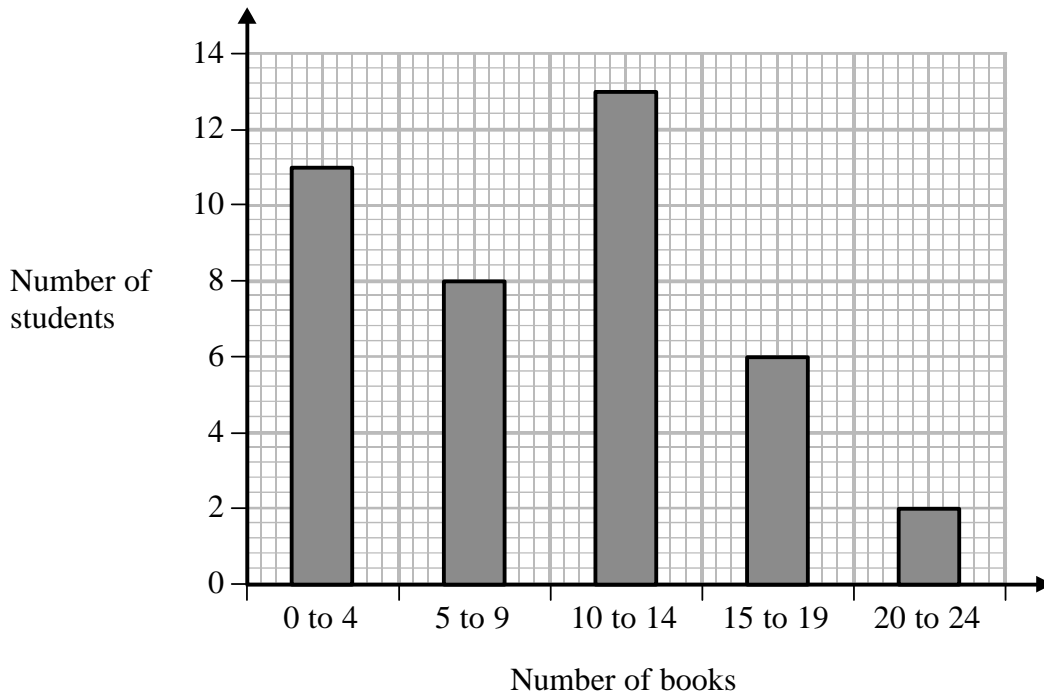
(1)

(Total for Question 8 is 7 marks)

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9 Fran asks each of 40 students how many books they bought last year.

The chart below shows information about the number of books bought by each of the 40 students.



(a) Work out the percentage of these students who bought 20 or more books.

.....%

(2)

(b) Show that an estimate for the mean number of books bought is 9.5
You must show all your working.

(4)

(Total for Question 9 is 6 marks)

TOTAL MARKS FOR PAPER: 48