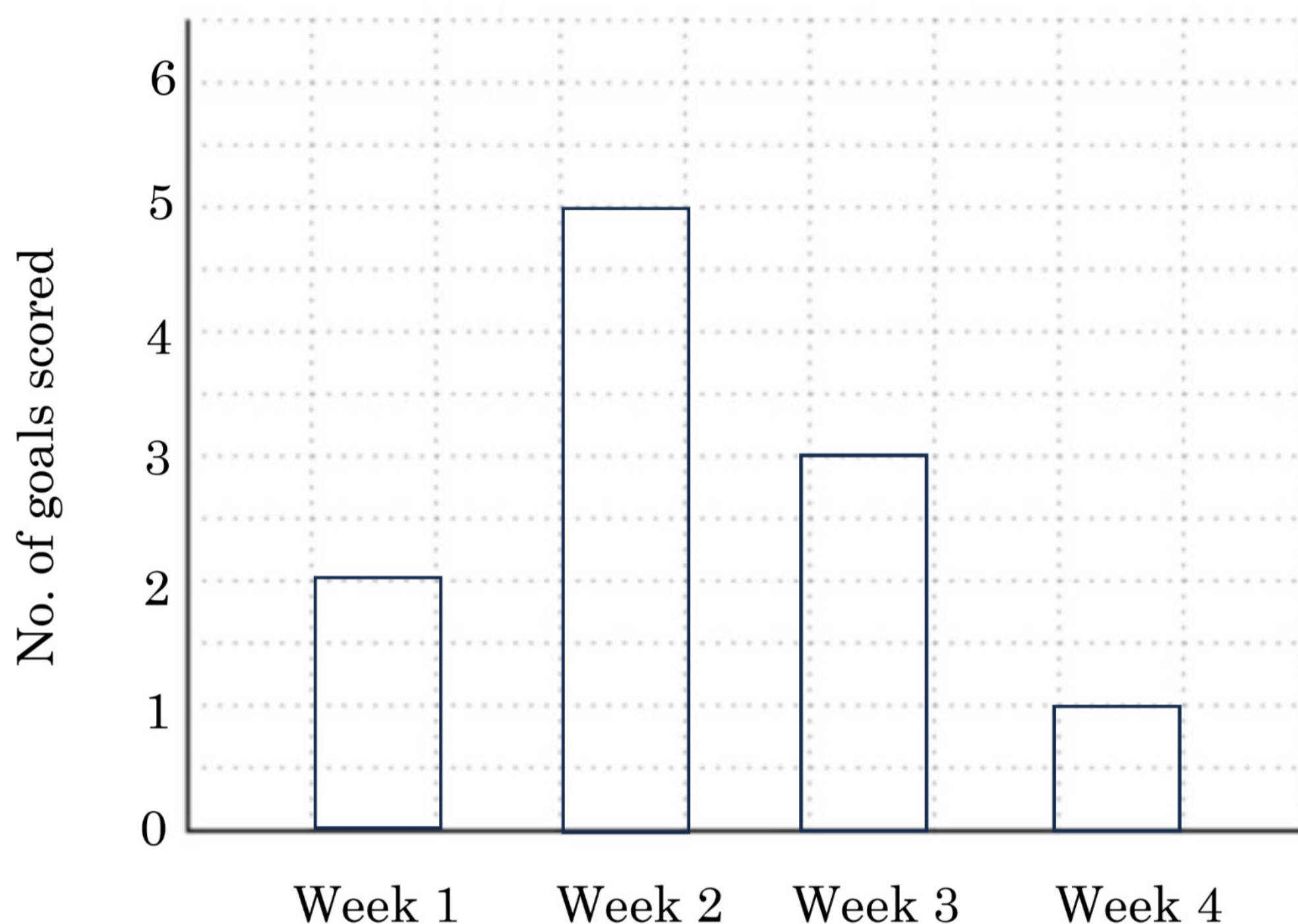




Bar Charts Exam Practice

Q1. The bar chart below shows the number of goals scored by a football team over a month.



a) Work out the mean number of goals scored per week.

$$\begin{aligned} \text{Mean} &= \frac{2 + 5 + 3 + 1}{4} \\ &= \frac{11}{4} \\ &= 3.75 \end{aligned}$$

Answer: 3.75
(2 marks)

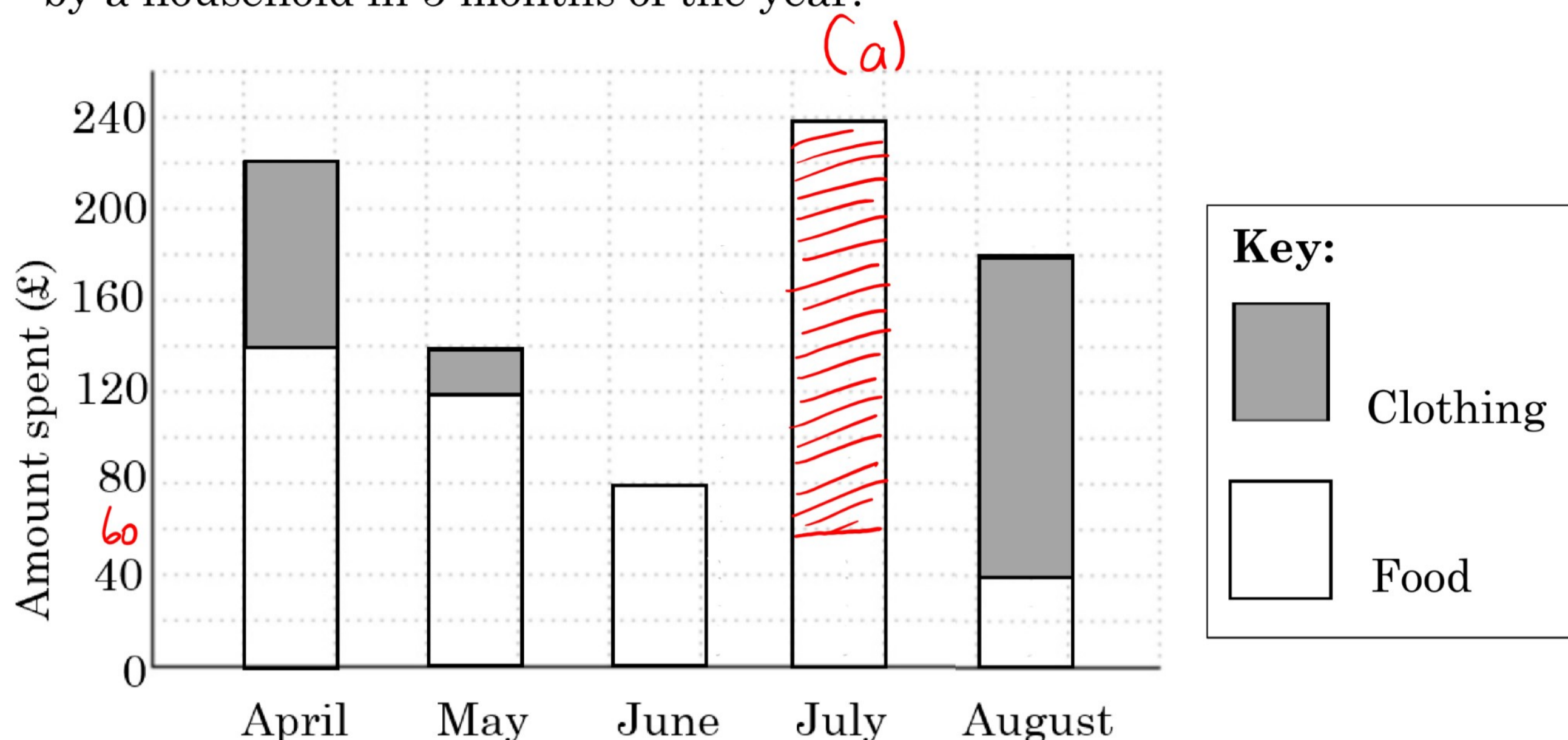
b) For what fraction of the weeks were the number of goals scored less than 3?

In weeks 1, 4 there were less than 3 goals
 $\Rightarrow \frac{2}{4}$

Answer: $\frac{1}{2}$
(2 marks)



Q2. The chart shows the amount of money spent on clothing and food by a household in 5 months of the year.



In June, no money was spent on Food. In July, £180 was spent on clothing.

a) Use this information to complete the bar chart.

Answer: _____
(2 marks)

b) Work out what proportion of the household's expenses were on food for the entire time period shown.

$$\begin{aligned} \text{Total on food} &= 140 + 120 + 80 + 60 + 40 \\ &= 440 \end{aligned}$$

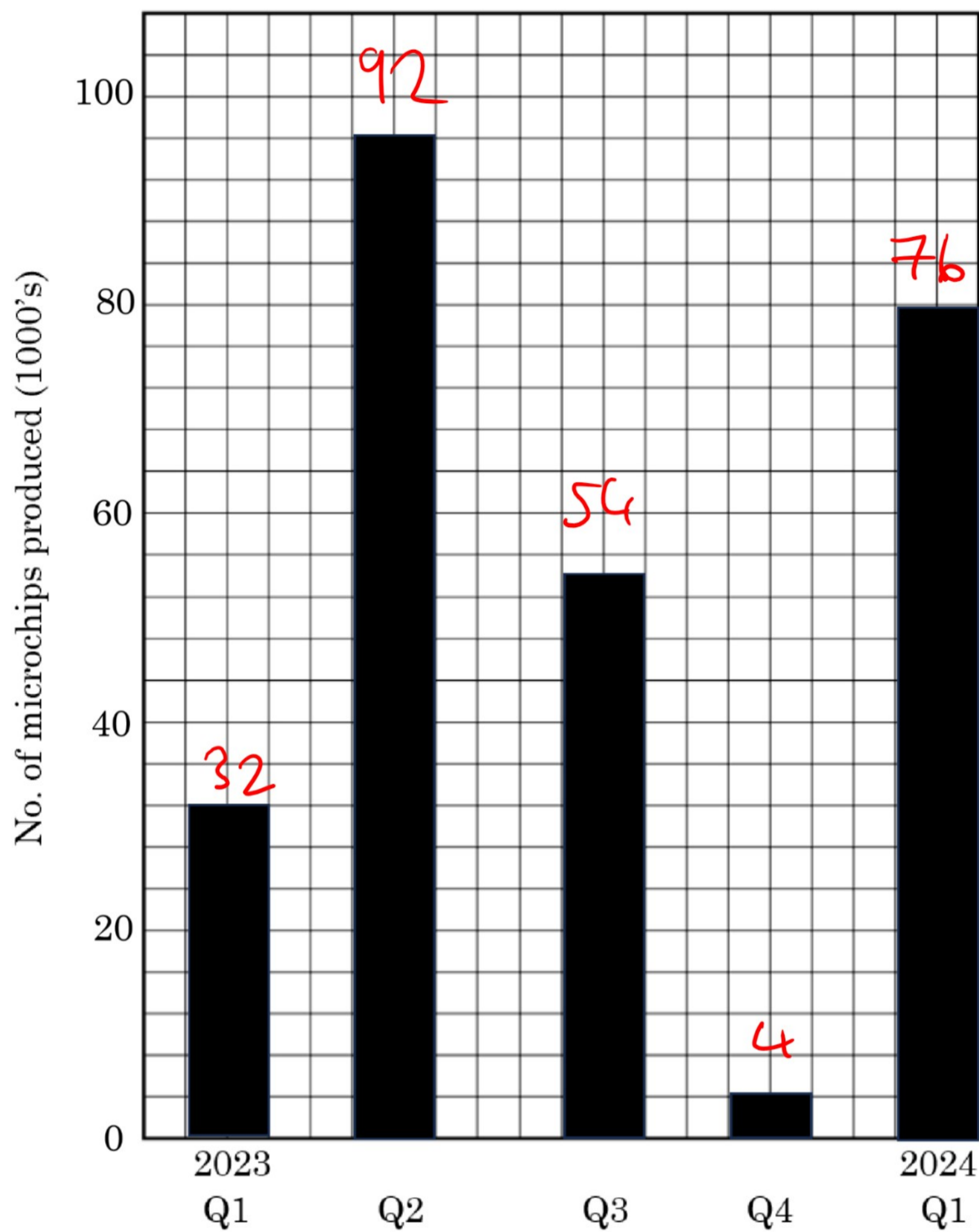
$$\begin{aligned} \text{Total expenses} &= 220 + 140 + 80 + 240 + 180 \\ &= 860 \end{aligned}$$

$$\frac{440}{860} = \frac{44}{86}$$

Answer: $\frac{22}{43}$
(3 marks)



Q3. A factory produces golf balls. The boss records the number of balls produced each quarter, and the results are shown on the chart below:



a) For 2023, what % of the golf balls were produced during the first two quarters?

two quarters?

$$\left(\frac{32 + 92}{32 + 92 + 54 + 4 + 76} \right) \times 100$$

Answer: 48.1%

(2 marks)

b) How many more balls were produced in Q3 than Q4?

$$54 - 4 = 50$$

$$\Rightarrow 50,000 \text{ balls}$$

Answer: 50,000 balls

(2 marks)

c) The boss claims that 2024 will be a more productive year than 2023. Do you agree? You must carefully explain your choice.

Yes - Q1, 2024 is much higher
at 76,000 balls than Q1 in 2023 (32,000 balls only)

Answer: Yes

(1 mark)

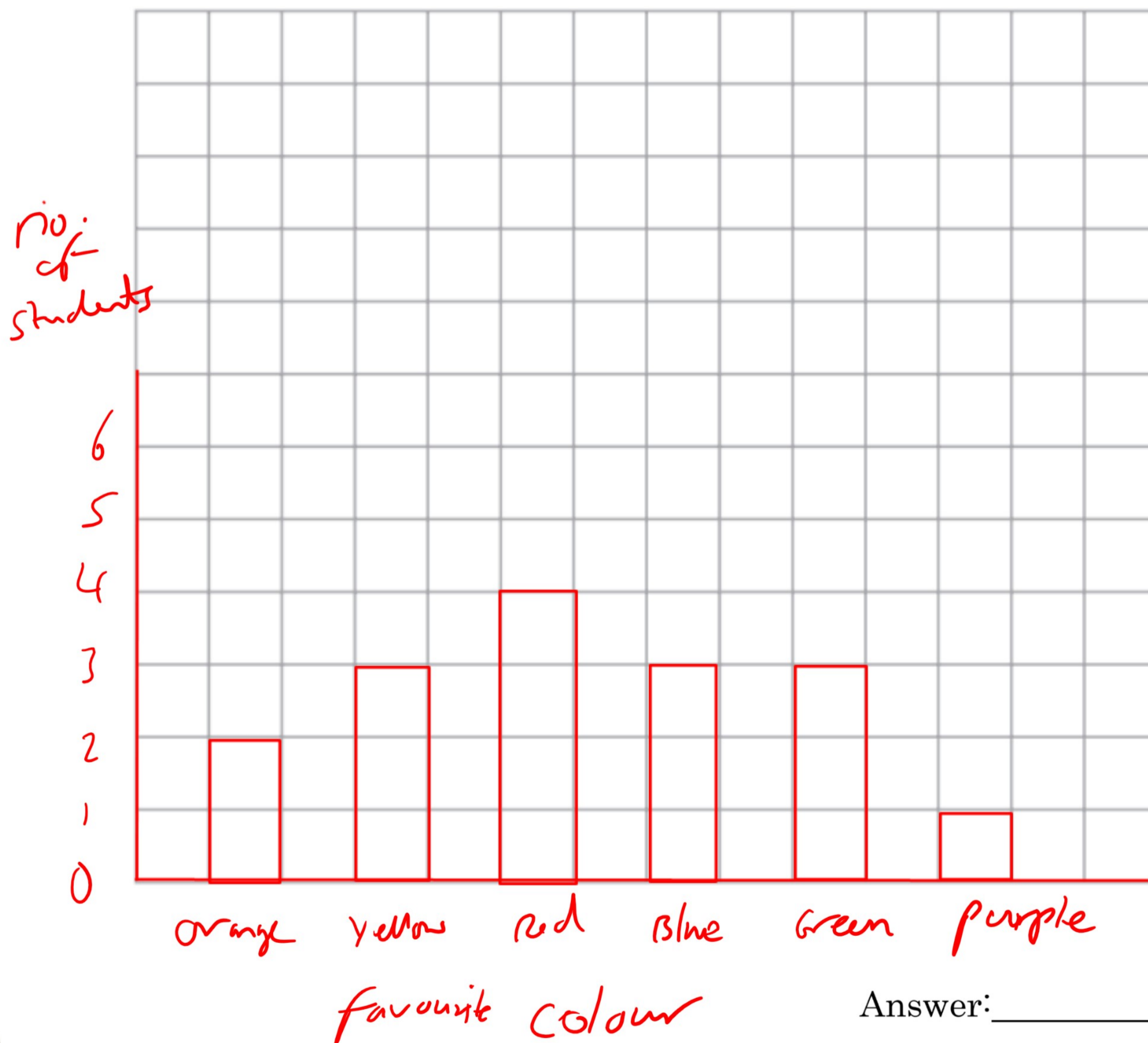


Q4. Stuart asks his classmates what their favourite colour is. The results are as follows:

~~Orange~~ ~~Yellow~~ ~~Blue~~ ~~Red~~
~~Red~~ ~~Blue~~ ~~Yellow~~ ~~Green~~
~~Red~~ ~~Green~~ ~~Green~~ ~~Yellow~~
~~Purple~~ ~~Orange~~ ~~Red~~ ~~Blue~~

Colour	Tally	Frequency
orange		2
Yellow		3
Red		4
Blue		3
Green		3
purple		1

Draw a bar chart to show this information on the grid below.



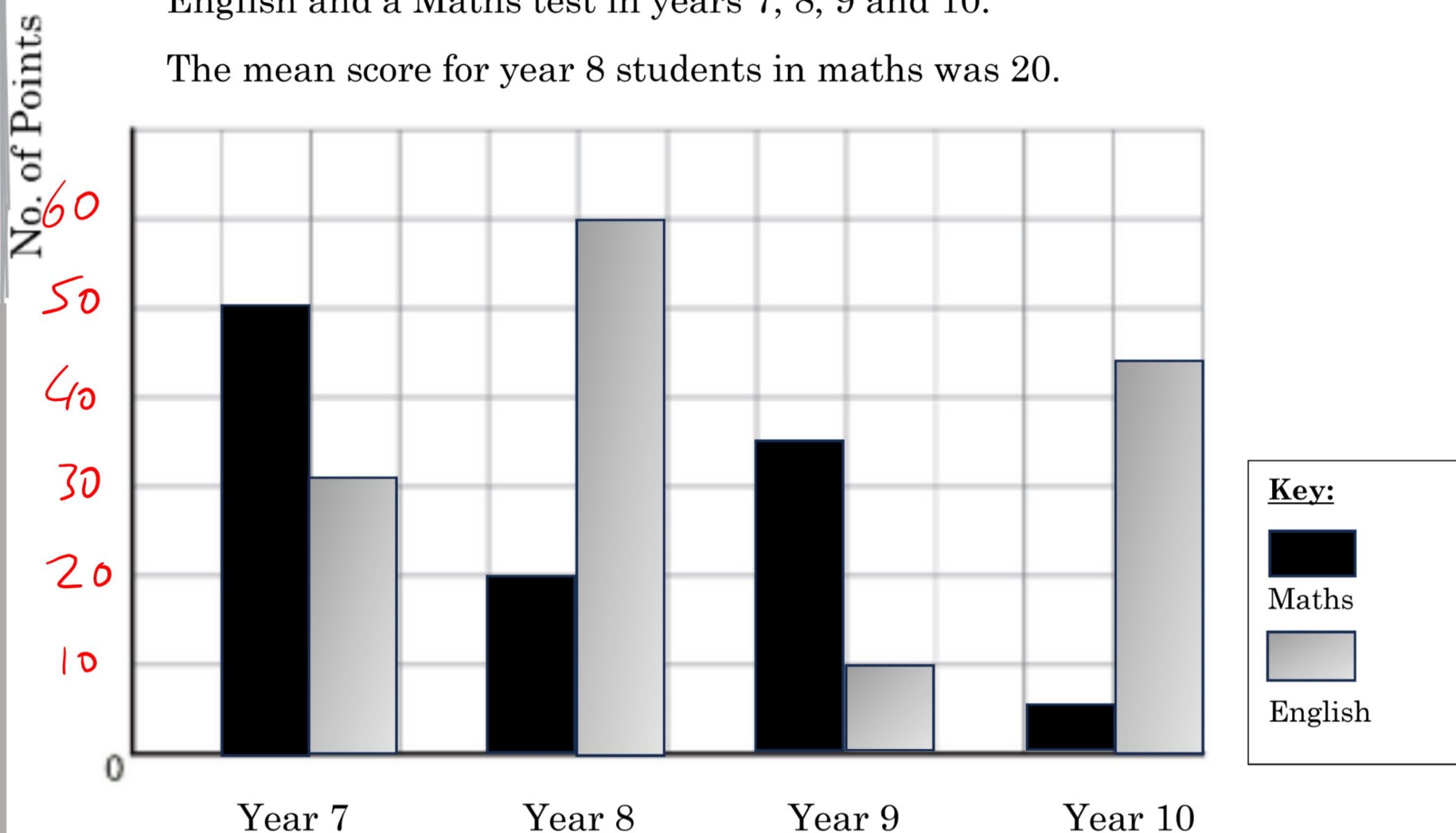
Answer: _____

(4 marks)



Q5. The graph below compares the mean score of pupils who have had an English and a Maths test in years 7, 8, 9 and 10.

The mean score for year 8 students in maths was 20.



a) Find the mean score of the year 10 students for the English test.

$$\frac{50 + 20 + 35 + 5}{4} = 27.5$$

Answer: 27.5
(2 marks)

b) In which year groups do pupils do better in the English test?

Year 8, Year 10

Answer: Years 8, 10
(2 marks)

c) In year 9, there were 50 students. Work out how many points were scored in total on the maths test by the year 9 pupils?

$$35 \times 50 = 1750$$

Answer: 1750 points
(2 marks)



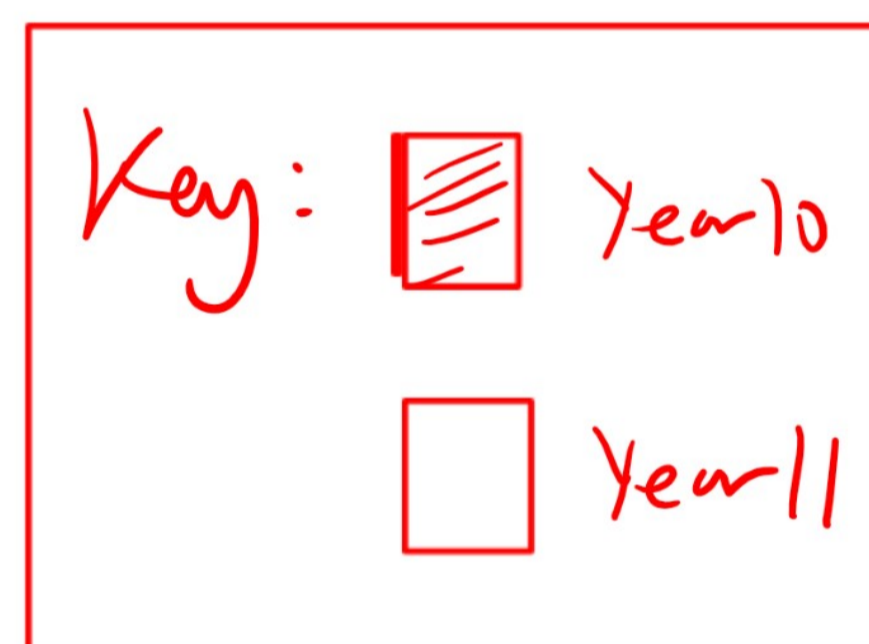
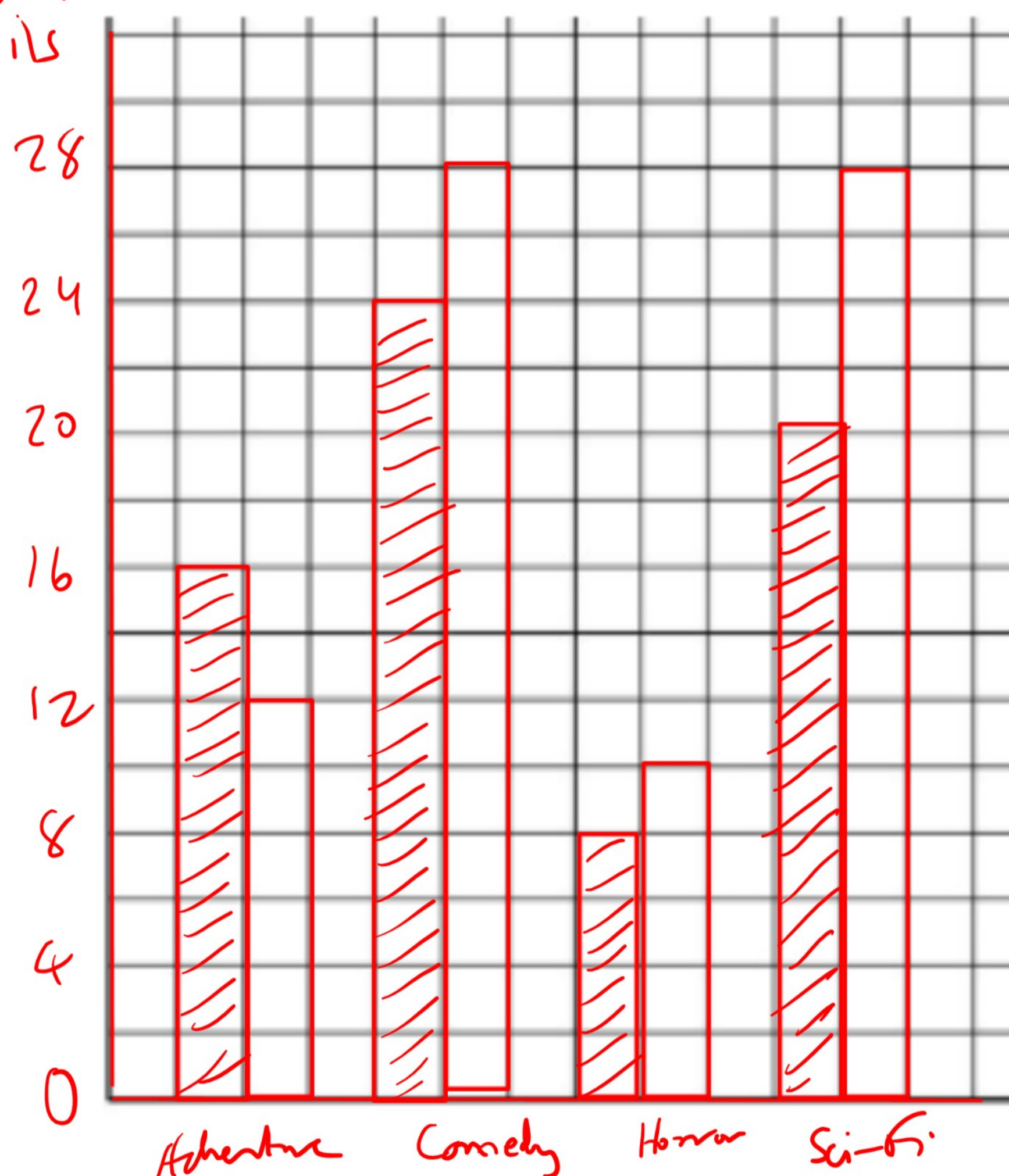
Q6. Pupils in year 10 and year 11 were asked what their favourite type of film was. The results were as follows:

	Adventure	Comedy	Horror	Sci-Fi
Year 10	16	24	8	20
Year 11	12	28	10	28

Draw a suitable bar-chart to display this information on the grid below:

Answer: _____
(4 marks)

no. of pupils



Which category of film do year 10 and year 11 have the biggest difference of opinion?

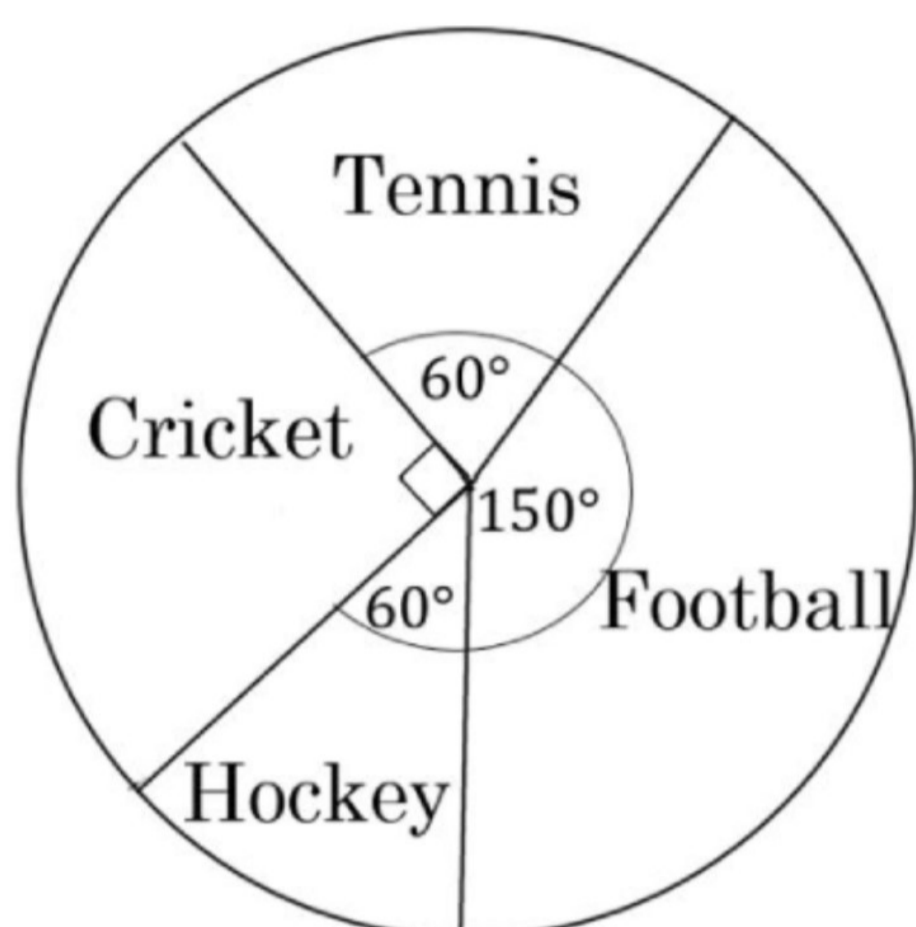
sci-fi

sci-fi

Answer: _____
(1 mark)



Q7. A group of students were asked which is their favourite sport.
The results are shown below:

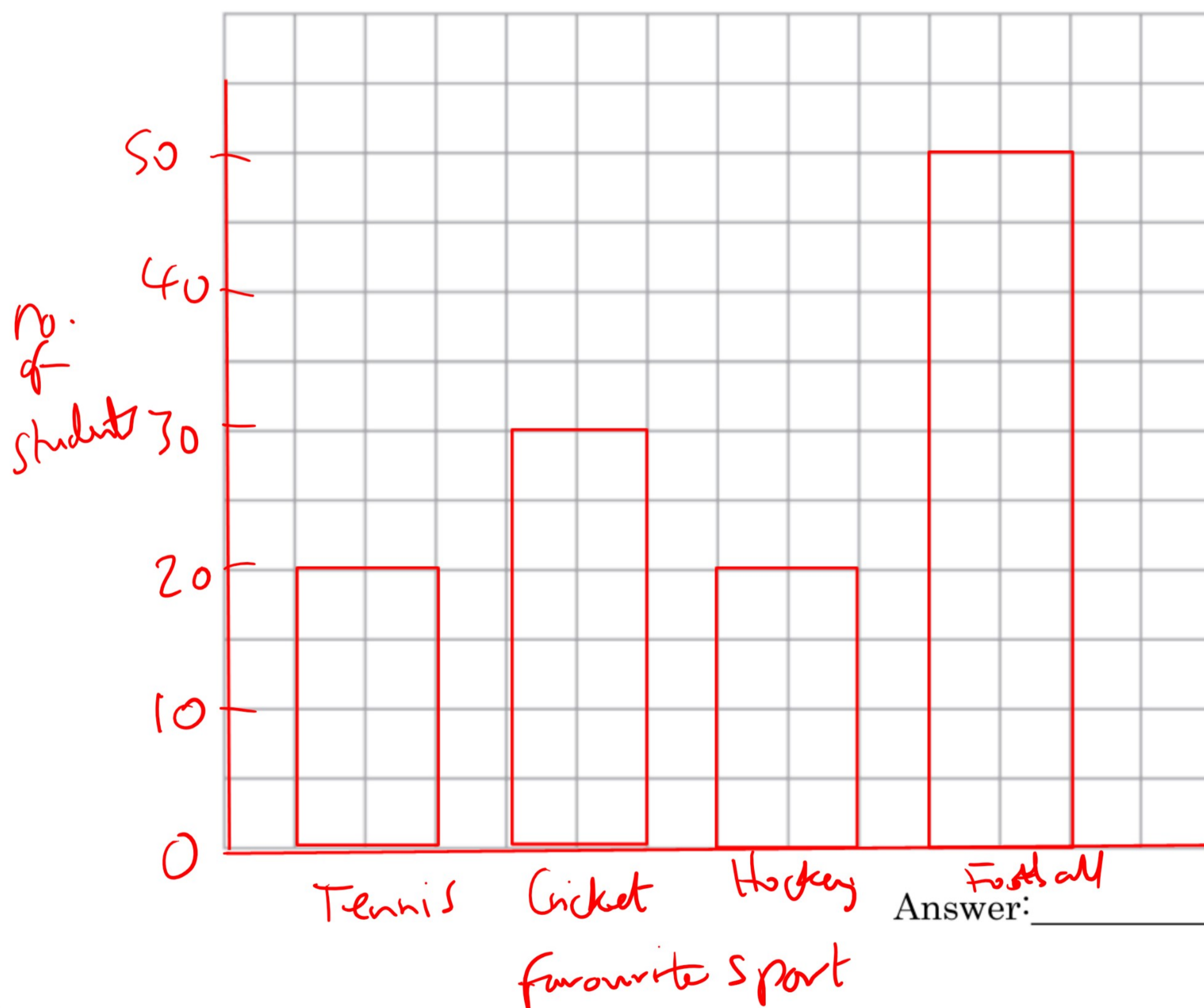


Sport	Frequency
Tennis	20
Cricket	30
Hockey	20
Football	50

20 students chose tennis.

$$\Rightarrow 1 \text{ Student} = 3^\circ$$

Use the pie chart to draw a bar chart to display this information.

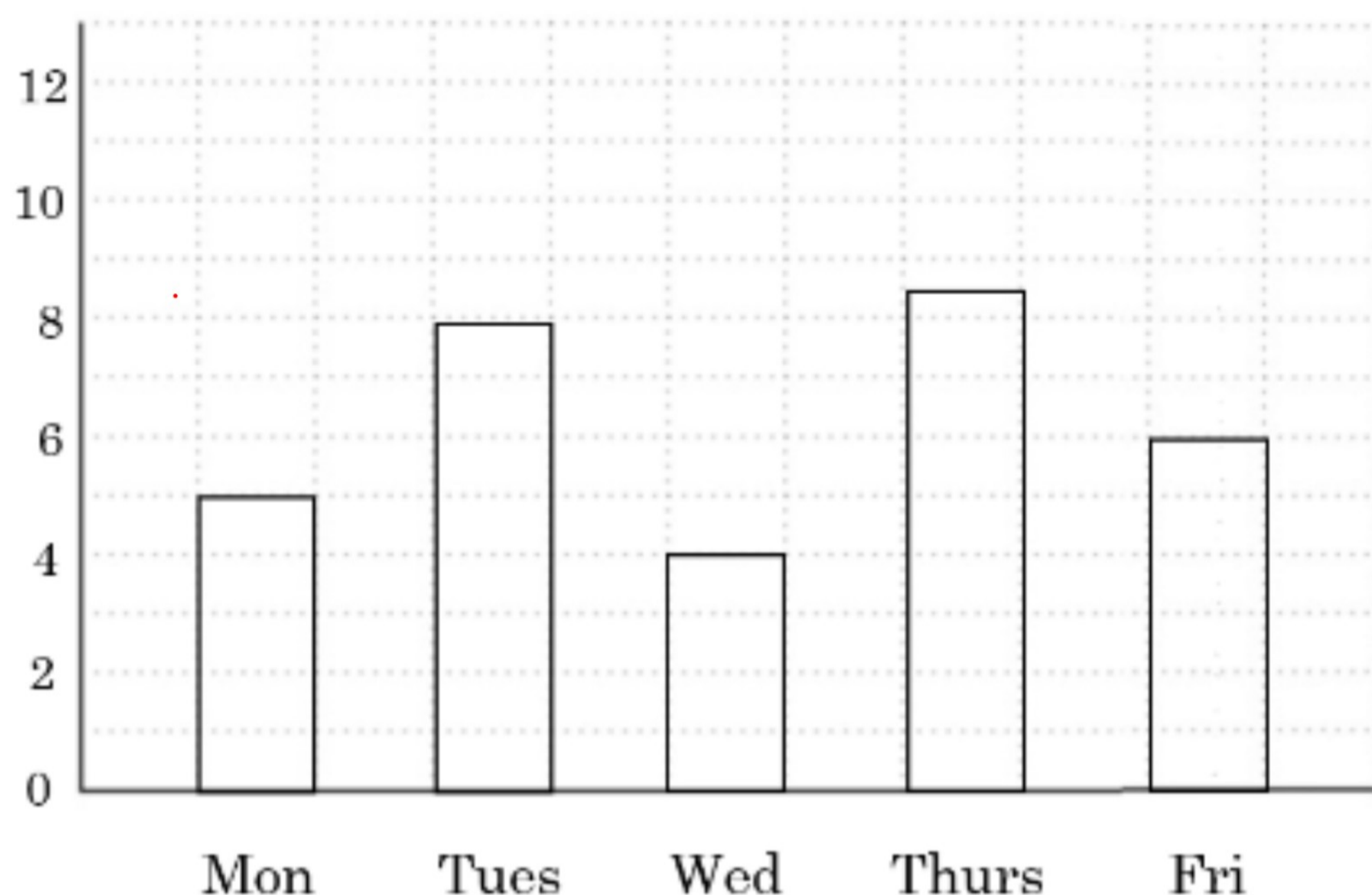


Answer: _____

(5 marks)



Q8. The bar chart shows the number of cars sold at a local garage during a Monday to Friday working week.



Explain what two mistakes have been made in this graph.

- Vertical axis is not labelled
eg. needs "no. of cars"
- Thursday suggests 8.5 cars were sold,
which makes no sense.

Answer: _____

(2 marks)