

Name

ANSWERS

Class



**MATHS TEACHER HUB**

www.MathsTeacherHub.com

# Line graphs

(9 – 1) Topic booklet

## Foundation

These questions have been collated from previous years GCSE Mathematics papers.

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

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.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a 1F question you are not allowed to use a calculator.
- If the question is a 2F or a 3F question, you may use a calculator to help you answer.

### Information

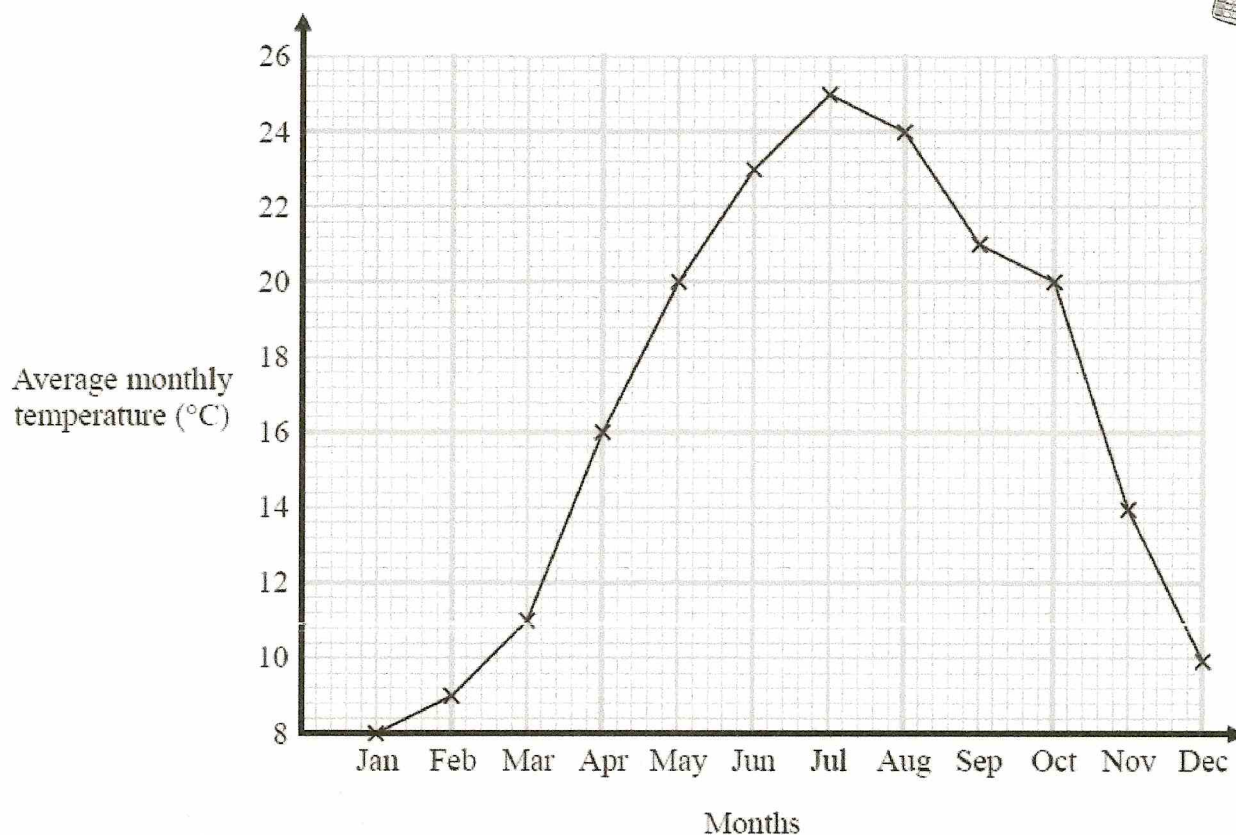
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### 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.

**Answer ALL questions**  
**Write your answers in the space provided.**  
**You must write down all the stages in your working.**

- 6 The graph shows information about the average monthly temperature, in  $^{\circ}\text{C}$ , in Amman.



- (a) For how many months was the average monthly temperature greater than  $16^{\circ}\text{C}$ ?

6

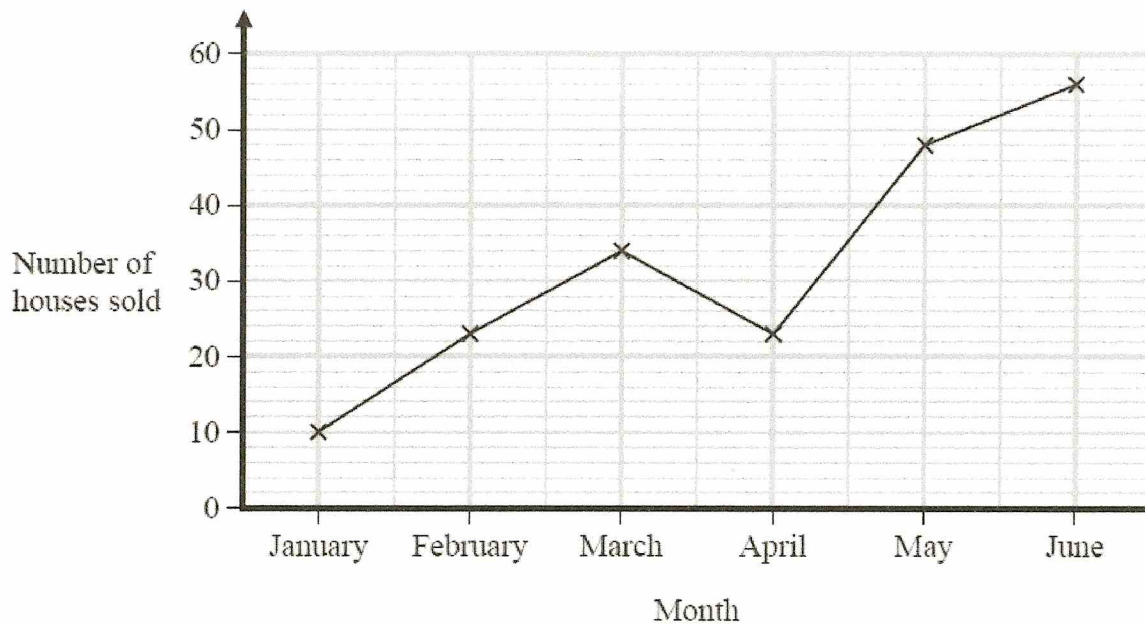
(1)

- (b) Write down the two months that had the same average monthly temperature.

May and October

(1)

- 9 The graph shows information about the number of houses sold by an estate agent in each of six months last year.



- (a) How many houses were sold by the estate agent in February?

23

(1)

- (b) For this estate agent, write down the ratio of the number of houses sold in January to the number of houses sold in June.

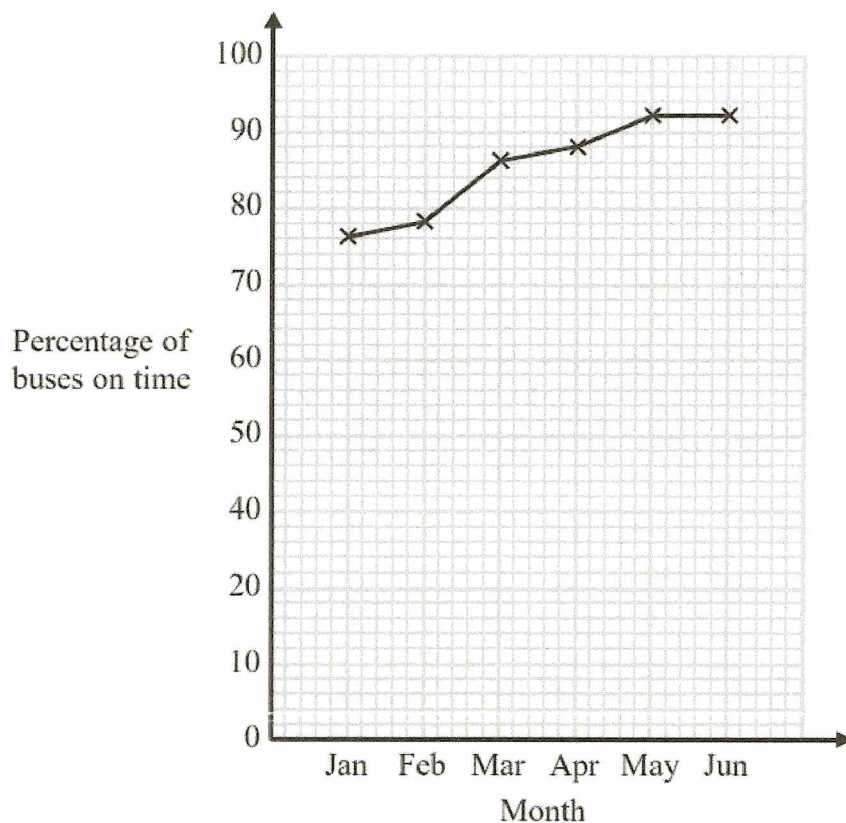
Jan : June  
10 : 56

5 : 28

(2)



- 8 Chrissy drew this graph to show the percentage of buses that got to a bus stop on time for six months.



- (a) Write down **one** thing that is wrong with the graph.

30 is missing from the vertical axis

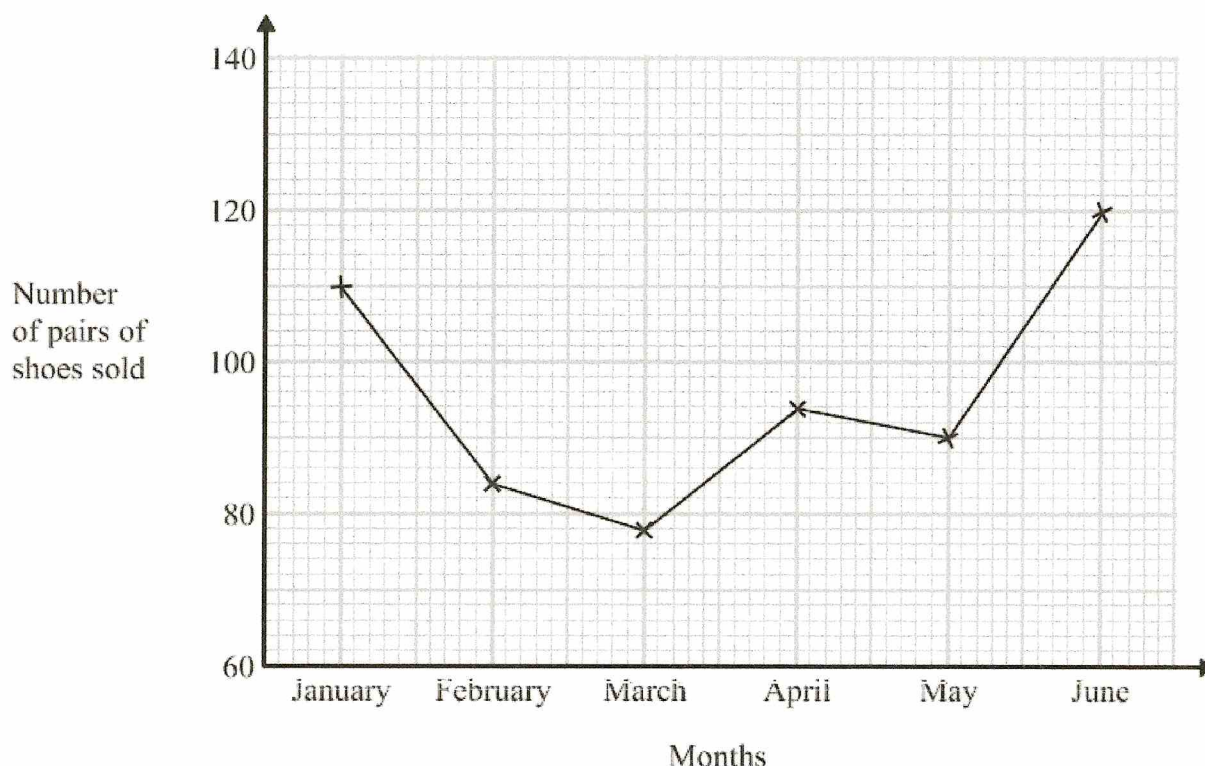
(1)

- (b) Describe the trend in the percentage of buses that got to the bus stop on time.

The percentage of buses is increasing.

(1)

- 22 The time-series graph gives some information about the number of pairs of shoes sold in a shoe shop in the first six months of 2014



The sales target for the first six months of 2014 was to sell a mean of 96 pairs of shoes per month.

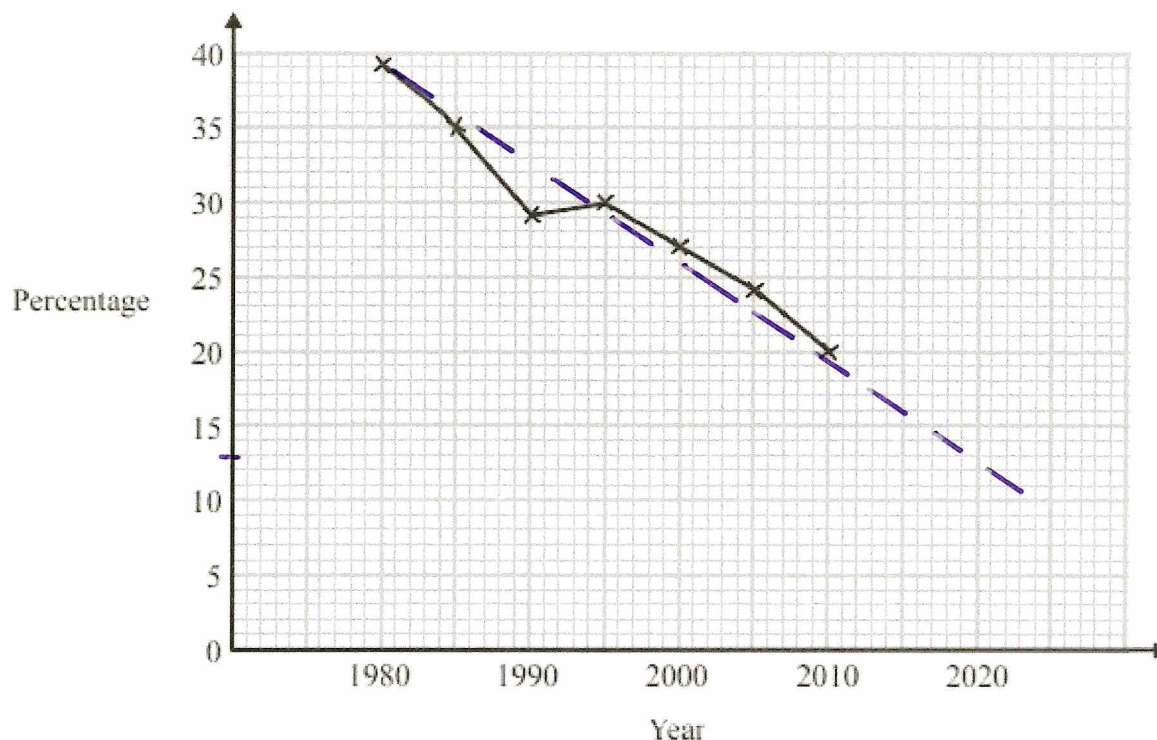
Did the shoe shop meet this sales target?  
You must show how you get your answer.

$$\begin{array}{cccccc} \text{Jan} & \text{Feb} & \text{March} & \text{Apr} & \text{May} & \text{Jun} \\ 110 & + & 84 & + & 78 & + & 94 & + & 90 & + & 120 & = & 576 \end{array}$$

$$\text{mean} = \frac{576}{6} = 96$$

Yes they met the sales target

- 23 The time series graph shows information about the percentages of the people in a village that used the village shop for the years between 1980 and 2010



- (a) Describe the trend in the percentage of the people in the village who used the shop for this period.

The percentage of people using the shop has decreased.

(1)

- (b) (i) Use the graph to predict the percentage of the people in the village likely to use the shop in the year 2020

13  
(10-15) %

- (ii) Is your prediction reliable?  
Explain your answer.

No, we don't have any data for 2020

(3)