Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Centre Number | | | | | |

Candidate Number | | | | |

Mock Set 6 – Spring 2021

Time: 1 hour 30 minutes

Paper Reference **1MA1/1F**

Mathematics

Paper 1 (Non-Calculator)
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.
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.
- **Calculators may not be used**.

Information

- The total mark for this paper is 80
- 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.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

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Pearson

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write down the value of the **3** in the number 9.63

.....

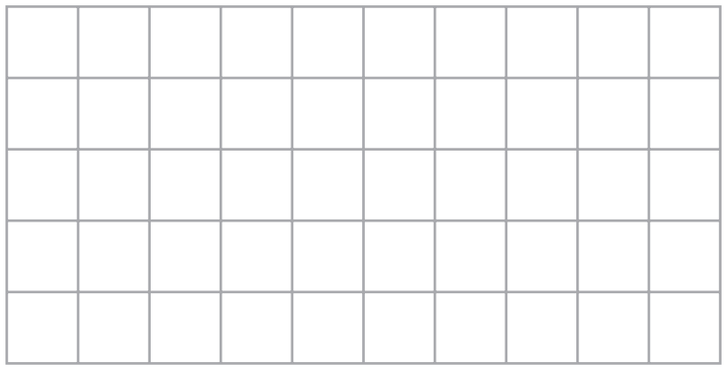
(Total for Question 1 is 1 mark)

2 Write 0.49 as a fraction.

.....

(Total for Question 2 is 1 mark)

3 On the grid, draw a kite.



(Total for Question 3 is 1 mark)

4 Write down a multiple of 12 that is between 20 and 50

.....

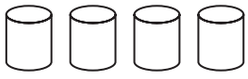
(Total for Question 4 is 1 mark)

5 Simplify $m + m + m + m$

.....

(Total for Question 5 is 1 mark)

6 Bargain Mart and Food Store each have a special offer on tins of soup.

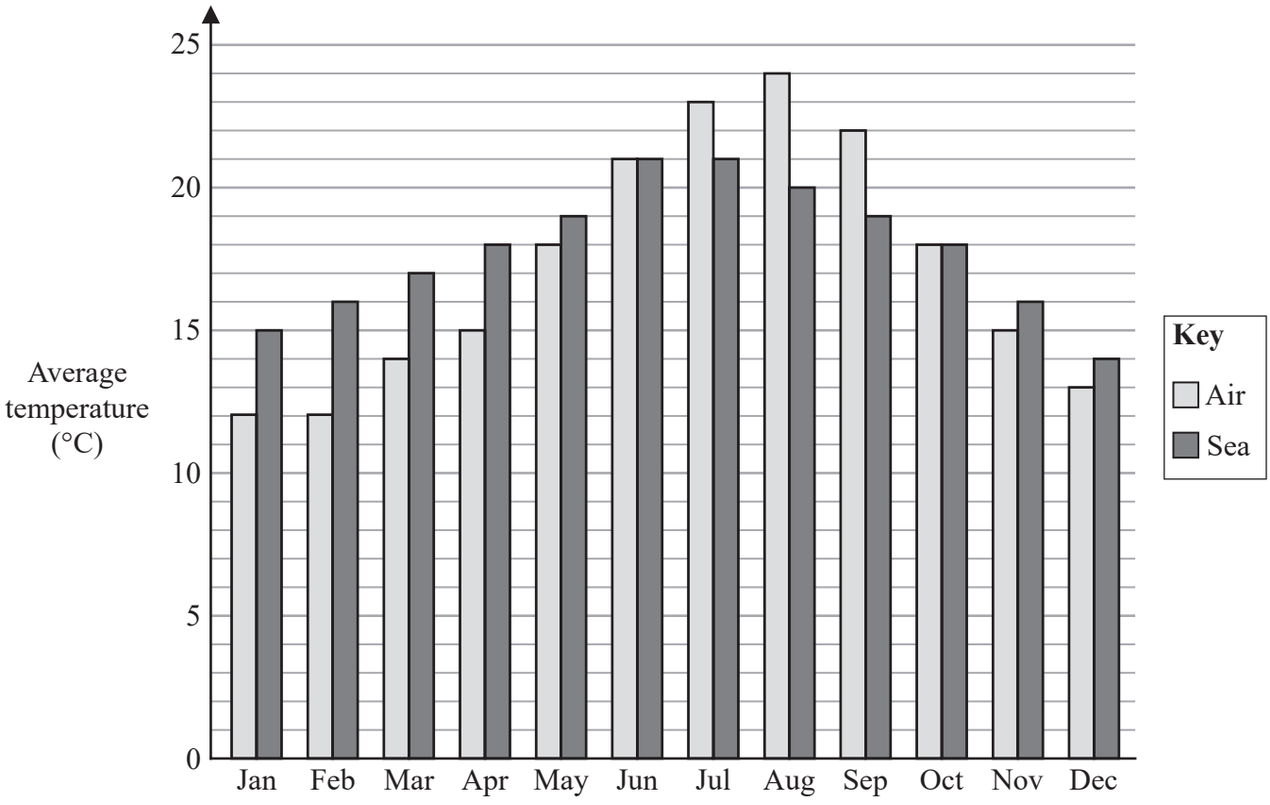
Bargain Mart	**Food Store**
Soup 70p per tin	Soup 70p per tin
Special offer	Special offer
	
5 tins for £3.00	4 tins for £2.00

Heidi is going to buy 10 tins of soup.
She wants to buy the 10 tins as cheaply as possible.

Should Heidi buy the soup from Bargain Mart or from Food Store?
You must show how you get your answer.

(Total for Question 6 is 3 marks)

7 The bar chart shows information about the average air temperature and the average sea temperature each month during one year.



(a) Write down the average sea temperature in September.

..... °C

(1)

(b) Write down the month with an average air temperature of 14°C

.....

(1)

In two of the months, the average air temperature is the same as the average sea temperature.

(c) Which two months?

..... and .....

(1)

(Total for Question 7 is 3 marks)

8 (a) Which distance is shorter, 0.8 km or $\frac{3}{4}$ km?

You must show how you get your answer.

(2)

Saira's height is 1.4 m.
Imran's height is 115 cm.

Saira's height is greater than Imran's height.

(b) How much greater?

.....

(2)

(Total for Question 8 is 4 marks)

9 The table gives information about the number of goals scored in each game by a school football team.

Number of goals	Frequency
0	2
1	3
2	2
3	5
4	2

Sharon says,

"The mode of the number of goals scored is 2 because 2 occurs most often in the table."

(a) Is Sharon correct?
Give a reason for your answer.

.....

.....

.....

(1)

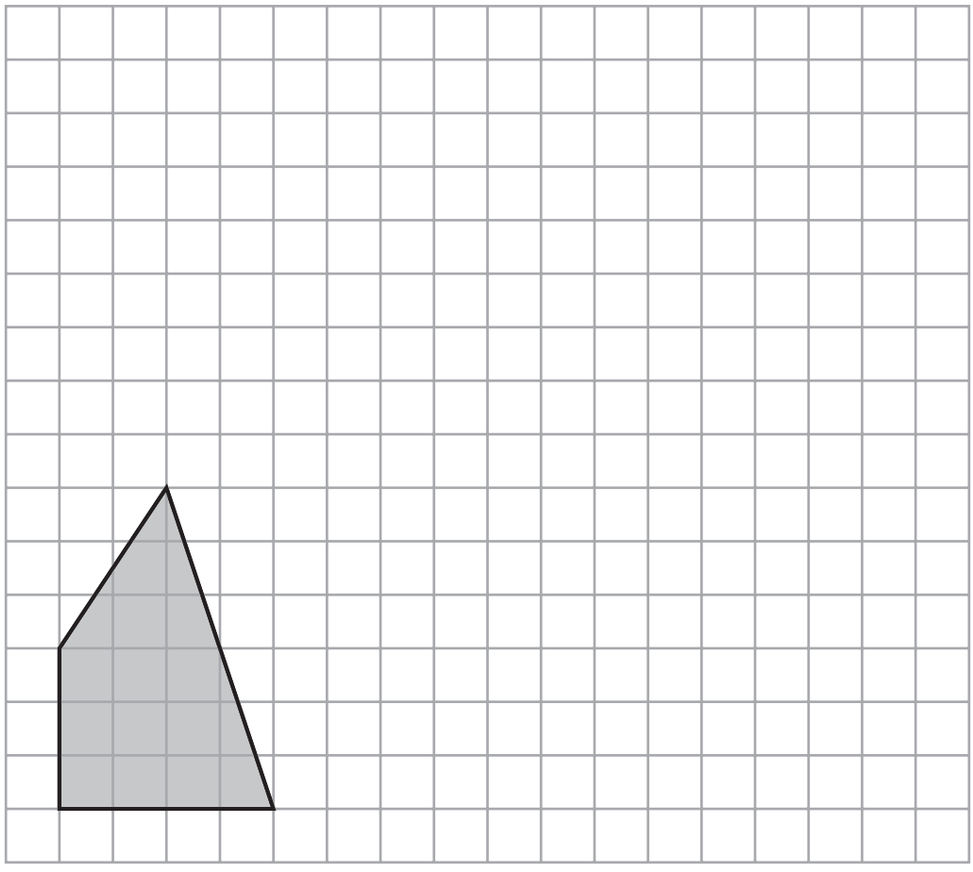
(b) Work out the total number of goals scored by the team.

.....

(2)

(Total for Question 9 is 3 marks)

10



On the grid, draw an enlargement of the shaded shape with a scale factor of 2

(Total for Question 10 is 2 marks)

11 Work out 442 ÷ 13

.....

(Total for Question 11 is 2 marks)

12 Jon was at a football match.
The match ended at 16 55

Jon got back to his car in the car park 15 minutes after the match ended.
He drove out of the car park 10 minutes later.
It then took him 45 minutes to drive home.

Did Jon get home before 18 00?
You must show how you get your answer.

(Total for Question 12 is 3 marks)

13 There are 30 sweets in a bag.
13 of the sweets are yellow.
The rest of the sweets are red.

(a) What fraction of the sweets in the bag are red?

.....

(1)

(b) Write as a ratio the number of yellow sweets to the number of red sweets.

.....

(1)

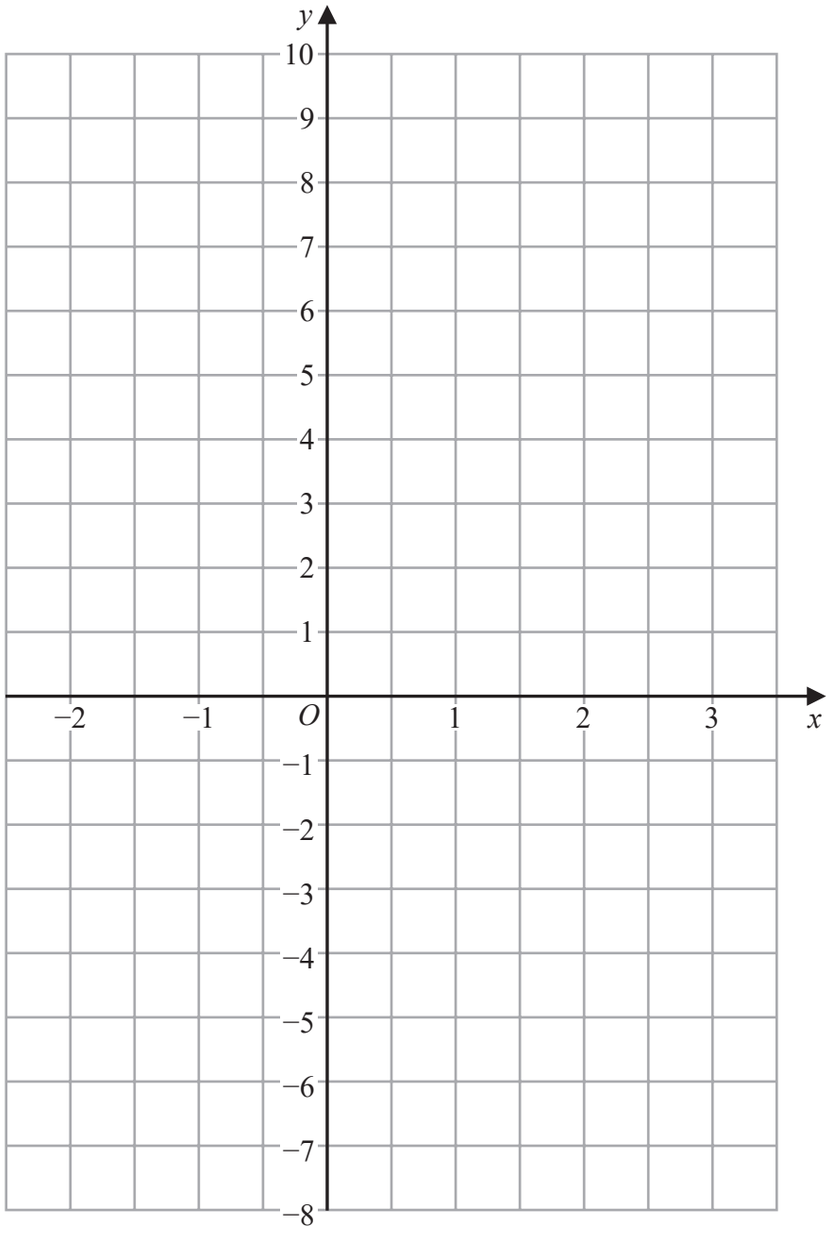
(Total for Question 13 is 2 marks)

14 (a) Complete the table of values for $y = 3x - 1$

x	−2	−1	0	1	2	3
y		−4			5	

(2)

(b) On the grid below, draw the graph of $y = 3x - 1$ for values of x from −2 to 3



(2)

(Total for Question 14 is 4 marks)

15 The nth term of a number sequence is $n^2 - 3$

(a) Find the 4th term of this sequence.

.....

(1)

(b) Show that 40 is not a number in this sequence.

(2)

(Total for Question 15 is 3 marks)

16 The cost of 3 kg of onions is 96p

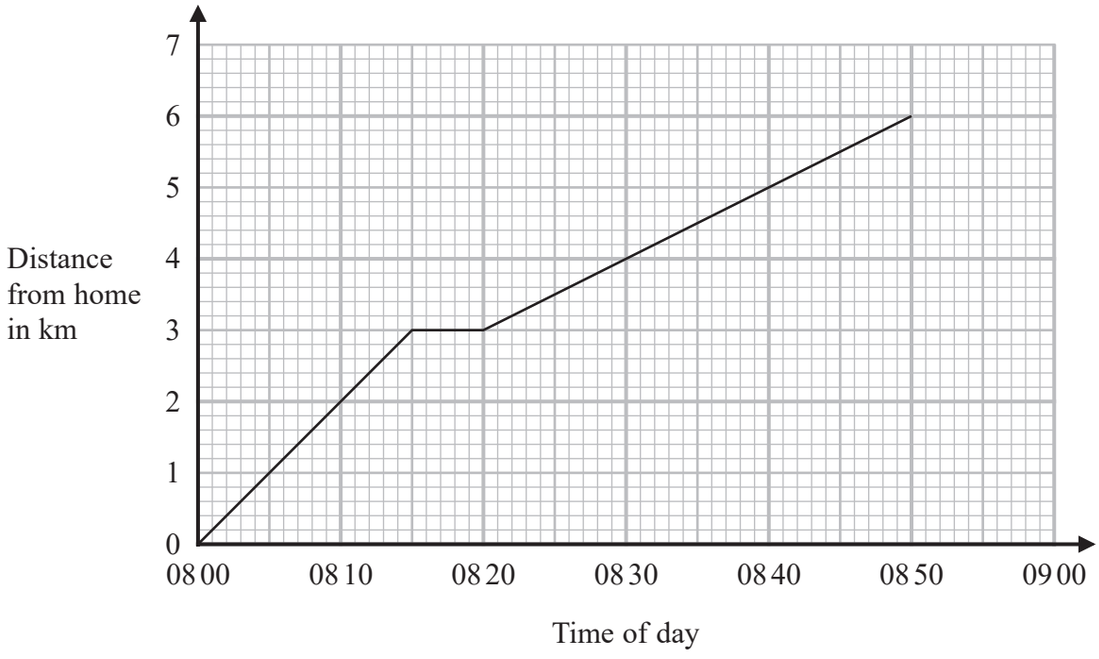
Work out the cost of 2.5 kg of the onions.

.....p

(Total for Question 16 is 2 marks)

17 Karl and Sean cycle from their home to school along the same roads.
They cycle 6 km from their home to school.

The travel graph for Karl's journey to school last Monday is shown below.



On his way to school, Karl stopped at a friend's house.

(a) At what time did Karl get to his friend's house?

.....

(1)

(b) How far away from **school** was Karl at 08 30?

..... km

(1)

Last Monday, Sean left home 10 minutes after Karl.
He cycled to school at a steady speed.
He did **not** stop on his way to school.
Sean took 30 minutes to cycle to school.

(c) On the grid, show the travel graph for Sean's journey to school.

(2)

(Total for Question 17 is 4 marks)

18 There are only green counters and blue counters in a bag.

There are 40 blue counters in the bag.
The ratio of the number of green counters to the number of blue counters is 1 : 4

Anil puts some more green counters into the bag.
The ratio of the number of green counters to the number of blue counters is now 3 : 5

How many green counters did Anil put into the bag?

.....

(Total for Question 18 is 4 marks)

19 The table shows some information about the ages of 70 people.

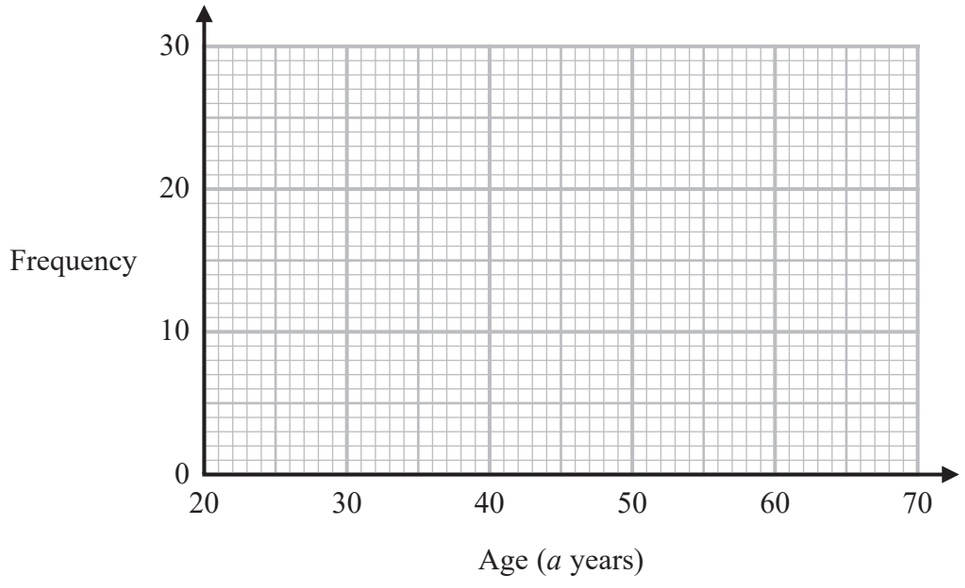
Age (a years)	Frequency
$20 \leqslant a < 30$	15
$30 \leqslant a < 40$	21
$40 \leqslant a < 50$	25
$50 \leqslant a < 60$	7
$60 \leqslant a < 70$	2

(a) Find the class interval that contains the median.

.....

(1)

(b) Draw a frequency polygon for the information in the table.



(2)

(Total for Question 19 is 3 marks)

20 Express 60 as a product of its prime factors.

.....

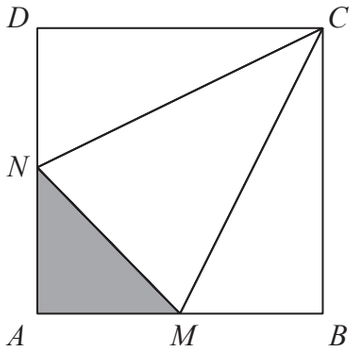
(Total for Question 20 is 2 marks)

21 Work out an estimate for the value of $\dfrac{297 \times 9.44}{0.503}$

.....

(Total for Question 21 is 3 marks)

22 The diagram shows a square $ABCD$.



M is the midpoint of AB.
N is the midpoint of AD.

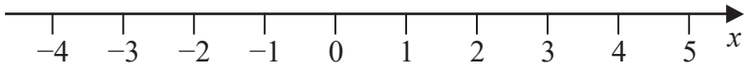
The area of the shaded triangle AMN is $18\,\text{cm}^2$

Work out the area of triangle MCN.

..... cm^2

(Total for Question 22 is 4 marks)

23 (a) On the number line below, show the set of values of x for which $-1 < x \leqslant 4$



(2)

(b) Solve the inequality $4y - 7 < 15$

.....

(2)

(Total for Question 23 is 4 marks)

24 There are 140 balloons in a packet.
The balloons are red or yellow or blue or green.

20% of the balloons are red.

$\frac{2}{7}$ of the balloons are yellow.

The ratio of the number of blue balloons to the number of green balloons is 5 : 4

Work out the number of green balloons in the packet.

.....

(Total for Question 24 is 5 marks)

25 (a) Write down the value of 10^{-2}

.....

(1)

(b) Write the number 375 000 000 in standard form.

.....

(1)

(c) Write the following numbers in order of size.
Start with the smallest number.

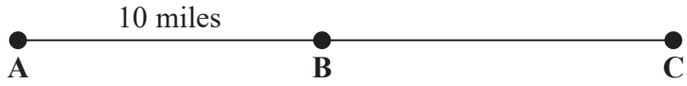
582×10^3 5.82×10^{-2} 0.005 82 0.582×10^5

.....

(2)

(Total for Question 25 is 4 marks)

26 The diagram shows some information about junctions **A**, **B** and **C** on a motorway.



Raja drove from **A** to **B** at an average speed of 50 mph.
The distance from **A** to **B** is 10 miles.

Raja took 30 minutes to drive from **A** to **C**.
He drove from **A** to **C** at an average speed of 62 mph.

Work out Raja's average speed as he drove from **B** to **C**.

..... mph

(Total for Question 26 is 4 marks)

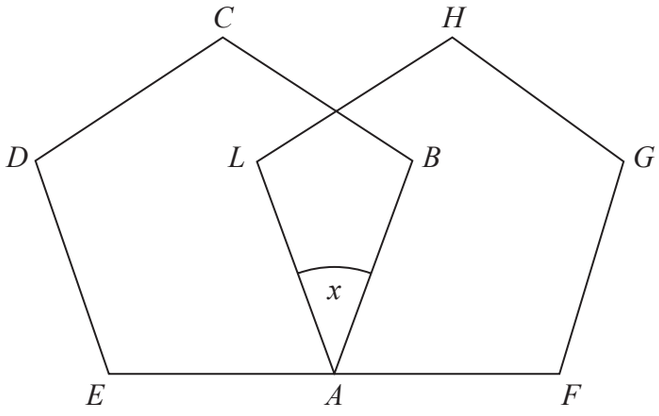
27 Kirsty bought a new TV.
The total cost of the TV was £360, including VAT at 20%

Work out the cost of the TV before the VAT was added.

£.....

(Total for Question 27 is 2 marks)

28 *ABCDE* and *AFGHL* are two regular pentagons.



EAF is a straight line.
EA = *AF*

Work out the size of the angle marked *x*.
You must show all your working.

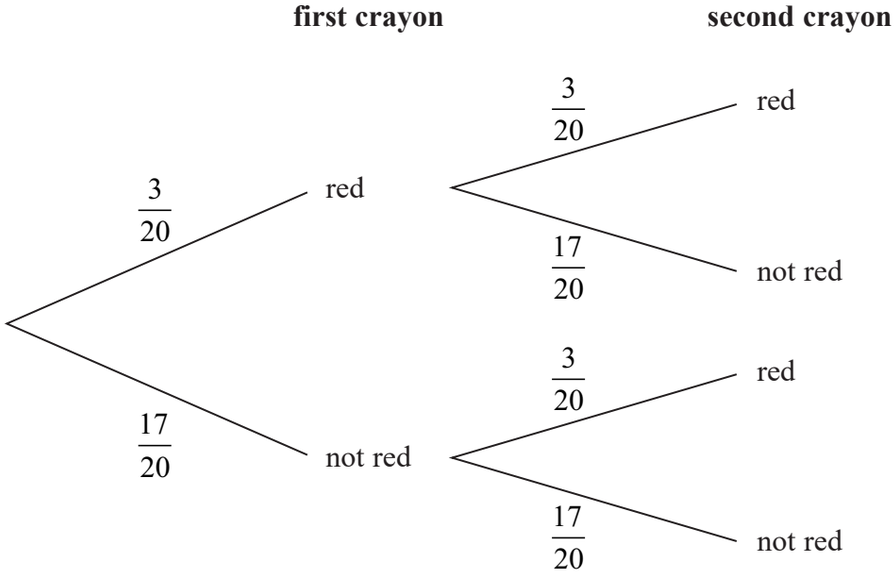
.....°

(Total for Question 28 is 3 marks)

29 There are 20 crayons in a tin.
3 of the crayons are red.

Samir takes at random a crayon from the tin and then puts the crayon back into the tin.
He then takes at random a second crayon from the tin.

Here is the probability tree diagram for this information.



Work out the probability that the first crayon is red and the second crayon is **not** red.

.....

(Total for Question 29 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS

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