

Write your name here	
Surname <i>mel@justmaths.co.uk</i>	Other names
Pearson Edexcel	Centre Number
Level 1/Level 2 GCSE (9-1)	Candidate Number
<h1 style="margin: 0;">Mathematics</h1> <h2 style="margin: 0;">Paper 1 (Non-Calculator)</h2> <p style="margin: 0; color: #e91e63; font-style: italic;">Worked Solutions Other methods to those shown can also be used)</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> Achieving a Grade 2 Foundation Tier </div>	
Spring 2023 Practice Paper 31 marks 30 minutes	Paper Reference 1MA1/1F
You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.	Total Marks <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>

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 31. There are 18 questions.
- This paper assumes students have worked through the “Aiming for Grade 1 papers” and as a result may have already seen a small number of these questions.
- All the questions are placed in ascending order of mean difficulty as found by students achieving Grade 2 in the Summer and November 2022 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.

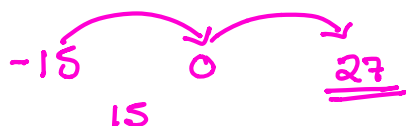
Answer ALL NINETEEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 In Norway last year, the lowest temperature was -15°C .
In Norway last year, the highest temperature was 42°C greater than the lowest temperature.

Work out the highest temperature in Norway last year.



$$-15 + 42 = 27$$

..... 27 $^{\circ}\text{C}$

(Total for Question 1 is 2 marks)

- 2 $y = 6x - 5$
Work out the value of y when $x = 4$

$$\begin{aligned} y &= 6 \times 4 - 5 \\ &= 24 - 5 \\ &= 19 \end{aligned}$$

$y =$ 19

(Total for Question 2 is 2 marks)

- 3 Here is a list of ingredients for making 10 scones.

Mia wants to make 25 scones.

Work out how much sugar she needs.

$$\begin{array}{rcl} & \text{SUGAR} & \\ 10 \text{ scones} & = & 40\text{g} \\ 20 \text{ scones} & = & 80\text{g} \\ 5 \text{ scones} & = & 20\text{g} \\ \hline 25 \text{ scones} & = & 100\text{g} \end{array}$$

Ingredients for 10 scones

75 g	butter
350 g	self-raising flour
40 g	sugar
150 ml	milk
2	eggs

..... 100 g

(Total for Question 3 is 2 marks)

4 Simplify $e + e + e + e$

$$= 4e$$

(not e^4 which would be $e \times e \times e \times e$)

$$4e$$

(Total for Question 4 is 1 mark)

5 Write these numbers in order of size.
Start with the smallest number.

$$\begin{array}{ccc} 0.5 & 0.55 & 0.45 \\ \frac{1}{2} & 0.55 & 45\% \\ 2 & 3 & 1 \end{array}$$

$$45\% \quad \frac{1}{2} \quad 0.55$$

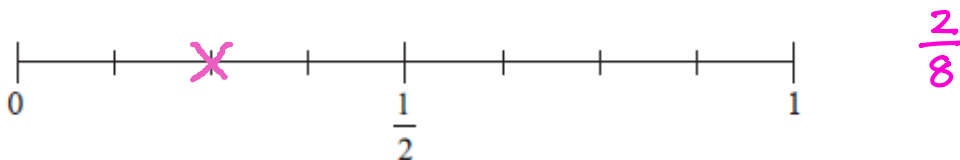
(Total for Question 5 is 1 mark)

6 Here is a list of 8 letters.

B C A A A A B A

One of the 8 letters is going to be picked at random.

(i) On the probability scale, mark with a cross (×) the probability that this letter will be B.



(1)

(ii) Find the probability that this letter will be C.

$$\frac{1}{8}$$

(1)

(Total for Question 6 is 2 marks)

7 There are 15 sweets in a jar. 4 of the sweets are red.
Jill takes at random a sweet from the jar.

(a) Write down the probability that the sweet is red.

$$\begin{array}{ccc} R & \text{Not Red} & \text{Total} \\ 4 & 11 & 15 \end{array}$$

$$\frac{4}{15}$$

(1)

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

A counter is taken at random from the bag.
The probability that the counter is green is 0.3

(b) Find the probability that the counter is blue.

$$\begin{array}{cc} A & B \\ 0.3 & 0.7 \\ 1 - 0.3 & \nearrow \end{array}$$

$$\begin{array}{r} 0.7 \\ \hline \end{array} \quad (1)$$

(Total for Question 7 is 2 marks)

8 There are only blue counters, green counters, red counters and yellow counters in a bag.
The table shows the number of blue counters in the bag.

Colour	blue	green	red	yellow
Number of counters	30			

There is a total of 100 counters in the bag. Ashin takes at random a counter from the bag.
Find the probability that the counter is **not** blue.

$$100 - 30 = 70$$

$$\begin{array}{r} 70 \\ \hline 100 \end{array}$$

(Total for Question 8 is 1 mark)

9 Simplify $3 \times w \times 5 \times t$

$$3 \times 5 \times w \times t$$

$$\begin{array}{r} 15wt \\ \hline \end{array}$$

(Total for Question 9 is 1 mark)

10 Change 40 centimetres into millimetres.

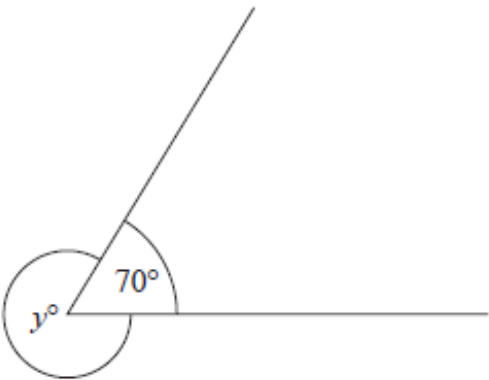
$$\begin{array}{l} 1\text{ cm} = 10\text{ mm} \\ \swarrow \quad \searrow \\ \times 40 \quad 40\text{ cm} = 400\text{ mm} \quad \times 40 \end{array}$$

$$\begin{array}{r} 400 \\ \hline \end{array} \text{ millimetres}$$

(Total for Question 10 is 1 mark)

11 Find the value of y .

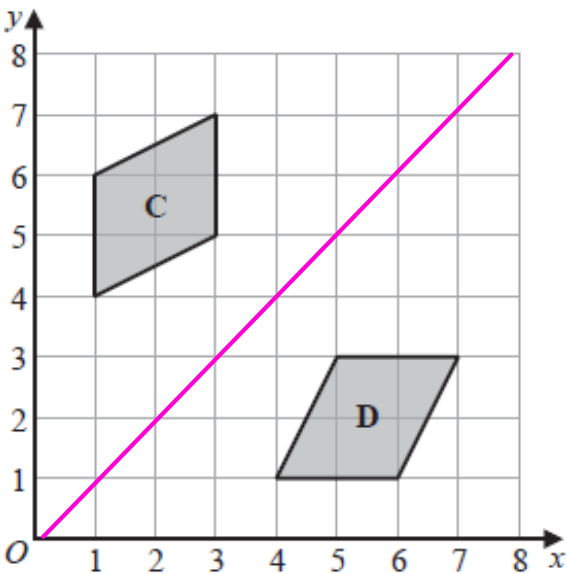
$360 - 70 = 290$



$y = 290$

(Total for Question 11 is 1 mark)

12 Here are two parallelograms on a coordinate grid.

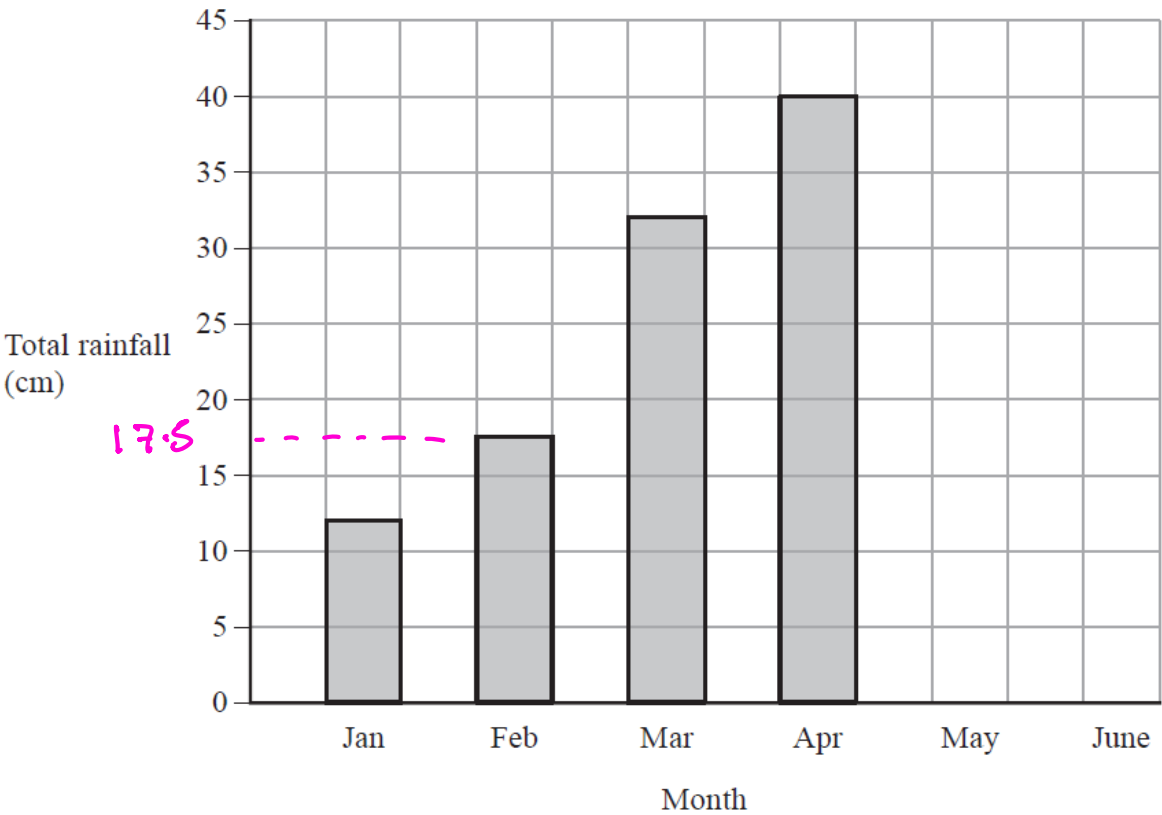


Parallelogram **D** is a reflection of parallelogram **C**.

On the grid, draw the mirror line.

(Total for Question 12 is 1 mark)

13 The bar chart shows information about the total rainfall each month for four months in a city.



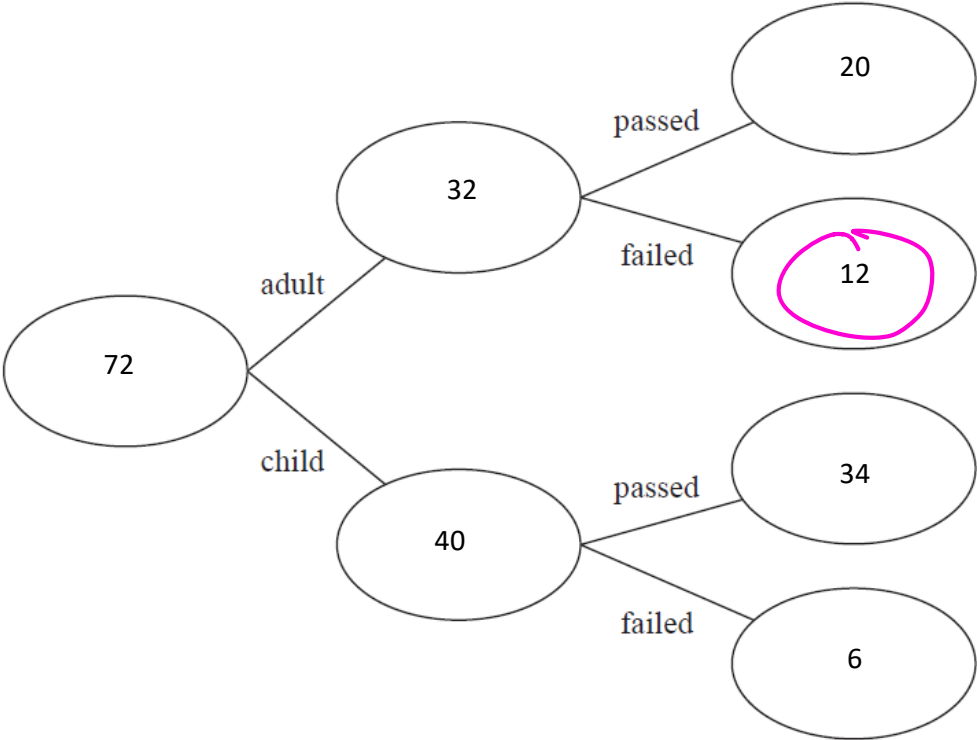
Rupa says:
“In February there was 15.5 cm of rainfall because the bar is half a square above 15”

Explain why Rupa is incorrect.

Half a square is worth 2.5cm, so February is 17.5cm

(Total for Question 13 is 1 mark)

14 Here is a completed frequency tree showing information about people who did a test.



One of these people is picked at random. 72

Find the probability that this person is an adult who failed the test.

$$\frac{12}{72}$$

.....
(Total for Question 14 is 2 marks)

15 Here are the ages, in years, of 15 people.

19 28 29 33 27
27 37 25 27 37
17 45 47 25 26

Show this information in a stem and leaf diagram.

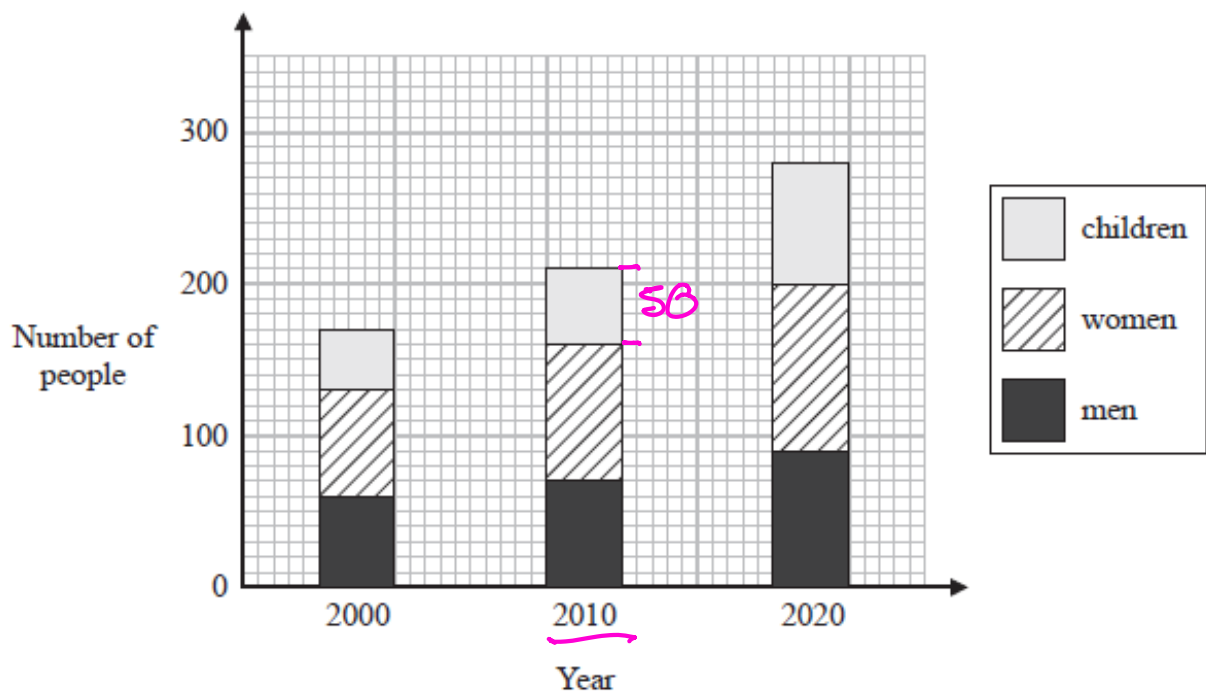
1 | 9 7
2 | 8 9 7 7 5 7 5 6
3 | 3 7 7
4 | 5 7

1	7 9
2	5 5 6 7 7 7 8 9
3	3 7 7
4	5 7

Key: 1 | 9 = 19

(Total for Question 15 is 3 marks)

16 The composite bar chart shows information about the number of people living in a village.



Find the number of children living in the village in the year 2010

..... 50
(Total for Question 16 is 1 marks)

17 A shop sells jars of coffee. Each jar of coffee costs £4
Michael has £23
(a) Work out the greatest number of jars of coffee Michael can buy.

$6 \times 4 = 24 \times$
 $5 \times 4 = 20 \checkmark$

..... 5 (2)

In a sale on Wednesday, jars of coffee are sold at half price.
Michael thinks that he can now buy exactly twice the number of jars of coffee for £23

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

$11 \times 2 = 22 \checkmark$
 $12 \times 2 = 24 \times$
 $10 \times 2 = 20 \checkmark$

..... Michael is incorrect.
..... Exactly twice would be 10 jars (£20) but he
..... can buy 11 jars (£22) and have £1 left. (1)
(Total for Question 17 is 3 marks)

18 Increase 240 by 20%

$$\begin{aligned} 10\% &= 24 \\ 20\% &= 48 \end{aligned}$$

$$\begin{aligned} 240 + 48 \\ = 288 \end{aligned}$$

288

(Total for Question 18 is 3 marks)

TOTAL FOR PAPER IS 31 MARKS