

Write your name here

Surname	Other names
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Pearson Edexcel Centre Number Candidate Number
Level 1/Level 2 GCSE (9-1)

Mathematics		
Paper 1 (Non-Calculator)		
Aiming for 4		
Foundation Tier		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Spring 2023 Practice Paper Time: 1 hour 30 minutes </td> <td style="width: 40%; padding: 5px;"> Paper Reference 1MA1/1F </td> </tr> </table>	Spring 2023 Practice Paper Time: 1 hour 30 minutes	Paper Reference 1MA1/1F
Spring 2023 Practice Paper Time: 1 hour 30 minutes	Paper Reference 1MA1/1F	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px;"> You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used. </td> <td style="width: 30%; padding: 5px; text-align: center;"> Total Marks <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto;"></div> </td> </tr> </table>	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; width: 40px; height: 40px; margin: 0 auto;"></div>
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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. There are 32 questions.
- Questions have been arranged in an ascending order of mean difficulty, as found by students achieving Grade 4 in the Summer and November 2022 examinations.
- Questions marked with an asterisk (*) also appear on the Higher Tier paper.
- 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

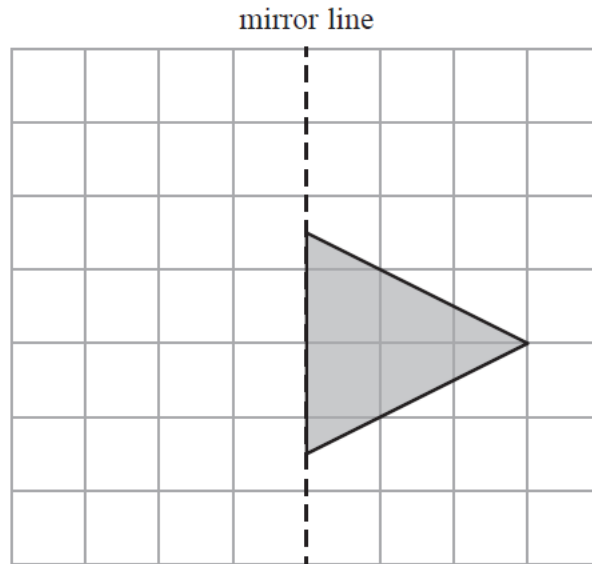
- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL THIRTY TWO questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 On the grid, reflect the shaded triangle in the mirror line.



(Total for Question 1 is 1 mark)

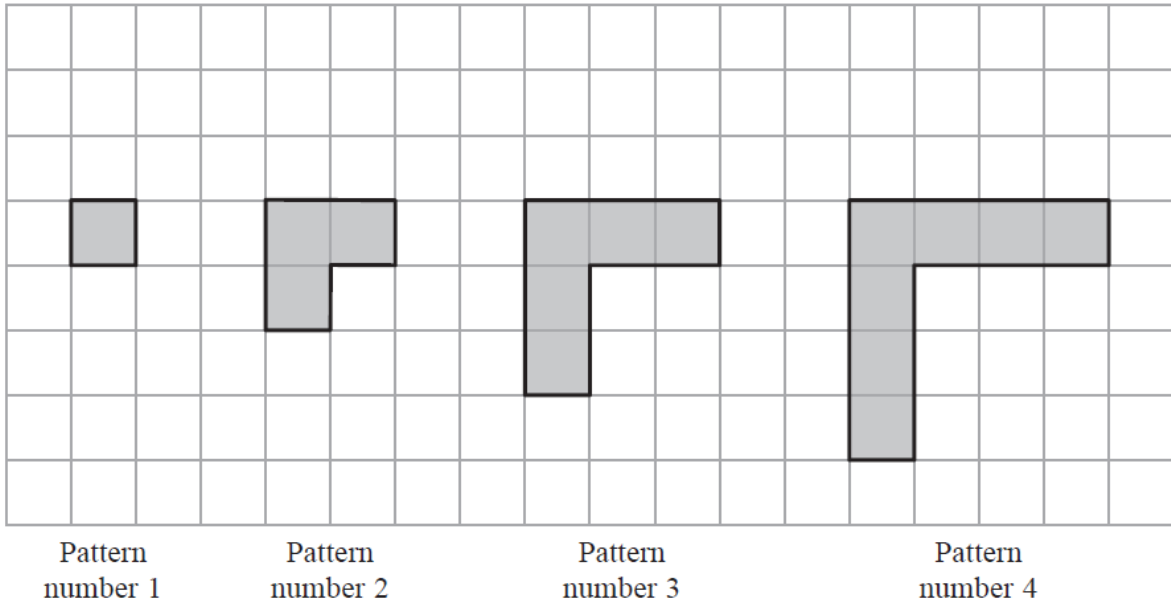
- 2 Work out 3^2

.....
(Total for Question 2 is 1 mark)

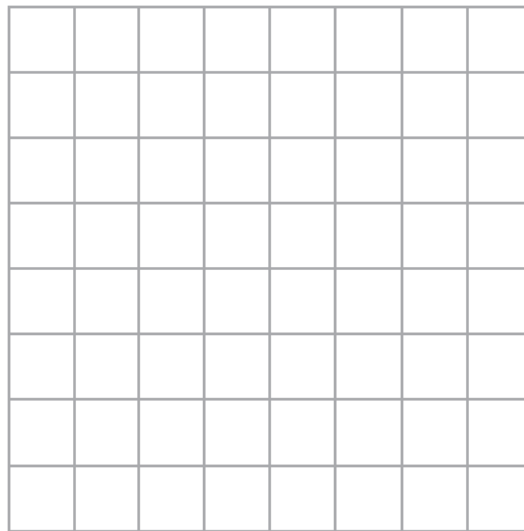
- 3 Work out $20 \div (3 + 2)$

.....
(Total for Question 3 is 1 mark)

4 Here is a sequence of patterns made from grey square tiles.



(a) On the grid below, draw Pattern number 5



(1)

(b) Complete the table.

Pattern number	1	2	3	4	5	6
Number of squares	1	3	5	7		

(1)

(Total for Question 4 is 2 marks)

5 Write down the value of the 6 in the number 16 007

.....
(Total for Question 5 is 1 mark)

6 Simon buys some candles.
Each candle costs £2

Simon pays with a £20 note.
He gets £6 change.

Work out the number of candles Simon buys.

.....
(Total for Question 6 is 3 marks)

7 $y = 6x - 5$

Work out the value of y when $x = 4$

$y =$
(Total for Question 7 is 2 marks)

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


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

.....

(Total for Question 8 is 1 mark)

- 9 The pictogram gives information about the number of hours of sunshine on a Saturday and on a Sunday.

Saturday	
Sunday	

Key:  represents 2 hours of sunshine

Work out the number of hours of sunshine on Saturday.

..... hours

(Total for Question 9 is 1 mark)

- 10** 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.

.....
(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.

.....
(1)

(Total for Question 10 is 2 marks)

11 Here is a list of ingredients for making 10 scones.

Ingredients for 10 scones	
75 g	butter
350 g	self-raising flour
40 g	sugar
150 ml	milk
2	eggs

Mia wants to make 25 scones.
Work out how much sugar she needs.

..... g
(Total for Question 11 is 2 marks)

12 Increase 240 by 20%

.....
(Total for Question 12 is 3 marks)

13 Write down a factor of 60 that is between 8 and 14

.....
(Total for Question 13 is 1 mark)

14 Fay is planning a trip to a theme park for 1 adult and 2 children.

These are the costs for the trip.

Total cost of petrol	£23
Tickets to theme park	£33 each adult £24.50 each child
Meals	£15 each adult £10 each child

Fay has £200 to spend.
She pays all the costs.

How much money does she have left?

£.....

(Total for Question 14 is 4 marks)

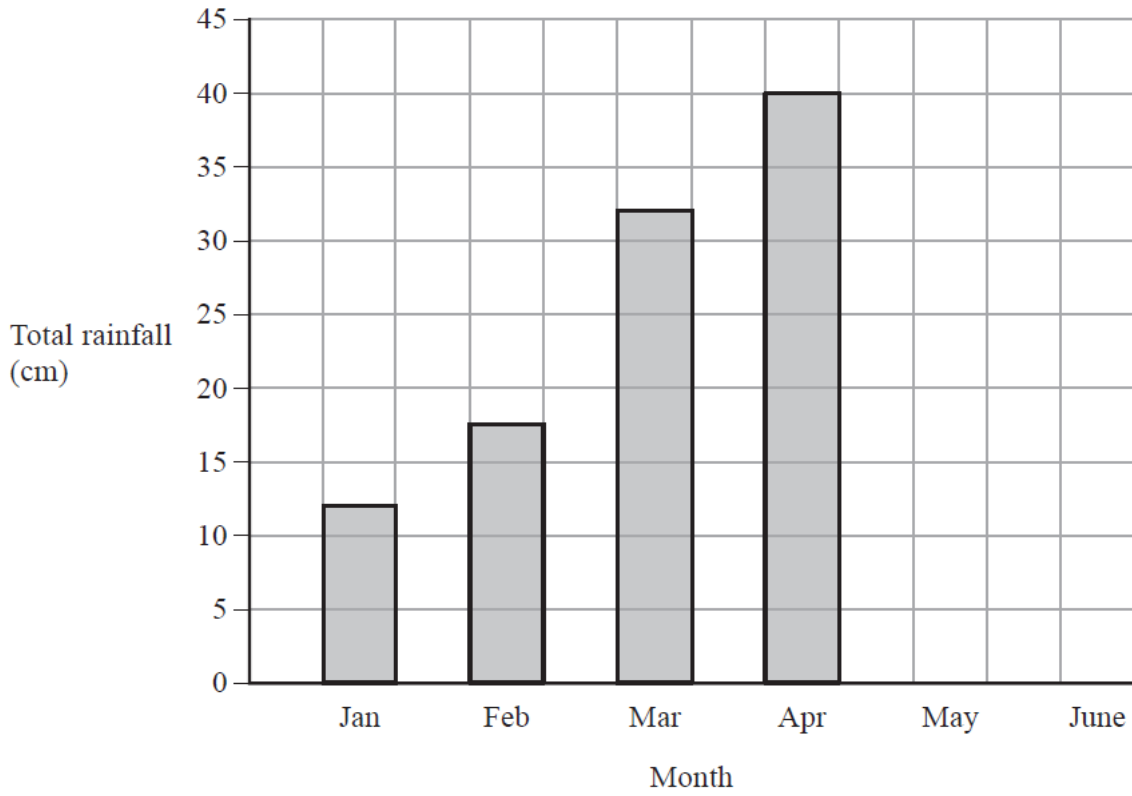
15 In Norway last year, the lowest temperature was -15°C .
In Norway last year, the highest temperature was 42°C greater than the lowest temperature.

Work out the highest temperature in Norway last year.

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

(Total for Question 15 is 2 marks)

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



In May, the total rainfall was 35 cm.
In June, the total rainfall was 20 cm.

- (a) Use this information to complete the bar chart.

(2)

Rupa says,

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

- (b) Explain why Rupa is incorrect.

.....

.....

.....

(1)

(Total for Question 16 is 3 marks)

17 Here is a list of 8 letters.

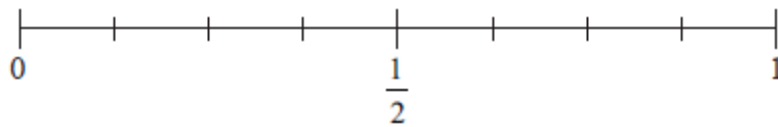
B C A A A A B A

(a) Write down the mode.

.....
(1)

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

(b) (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.

.....
(1)

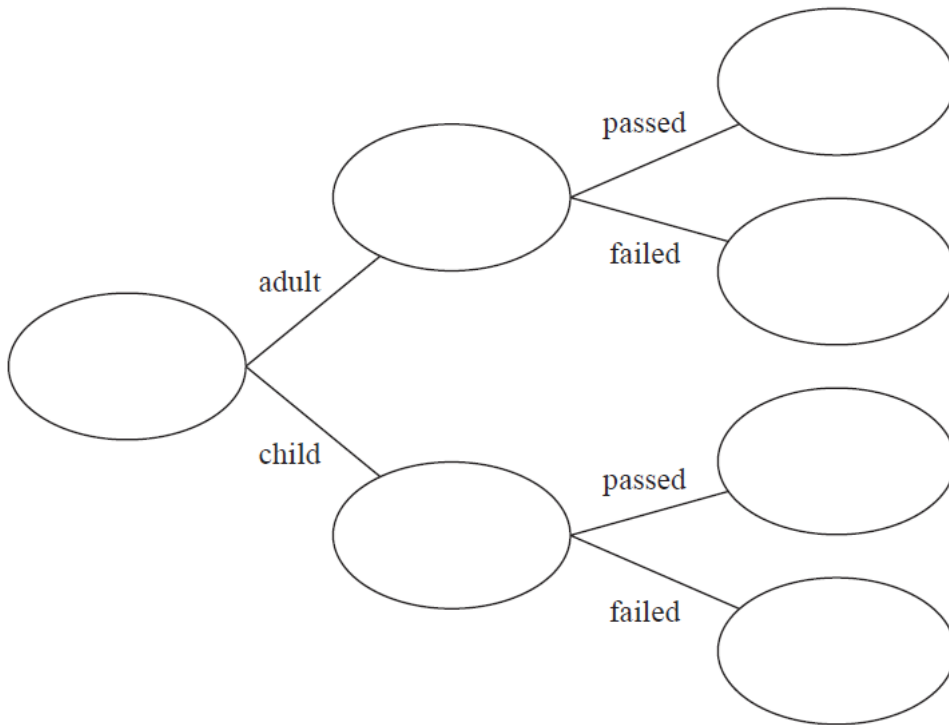
(Total for Question 17 is 3 marks)

18 Write 0.3 as a fraction.

.....
(Total for Question 18 is 1 mark)

- 19** 72 people did a test.
 20 of the 32 adults who did the test passed.
 6 of the children who did the test failed.

(a) Use this information to complete the frequency tree.



(3)

One of these people is picked at random.

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

.....
(2)

(Total for Question 19 is 5 marks)

20 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.

.....
(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.

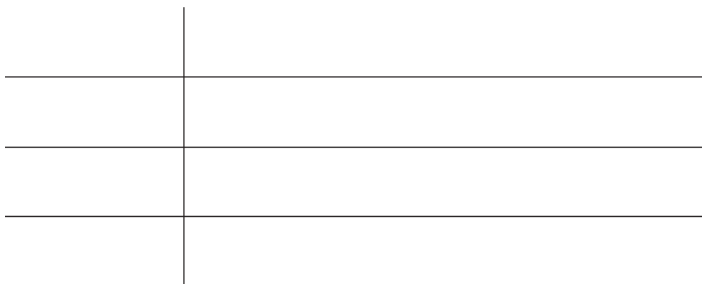
.....
.....
.....
(1)

(Total for Question 20 is 3 marks)

21 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.



Key:

(Total for Question 21 is 3 marks)

22 Simplify $e + e + e + e$

.....
(Total for Question 22 is 1 mark)

23 (a) Solve $m - 3 = 4$

$m = \dots\dots\dots$
(1)

(b) Solve $3n + n = 24$

$n = \dots\dots\dots$
(2)

(Total for Question 23 is 3 marks)

24 (a) Work out $\frac{5}{12} + \frac{1}{6}$

$\dots\dots\dots$
(2)

(b) Work out $\frac{3}{10} \times \frac{5}{8}$

Give your answer as a fraction in its simplest form.

$\dots\dots\dots$
(2)

(Total for Question 24 is 4 marks)

25 Elena spent 120 minutes at a sports centre.

She played badminton for 50 minutes.

She used the swimming pool for 16 of the 120 minutes.

She used the gym for 20% of the 120 minutes.

She then spent the rest of the 120 minutes in the cafe.

(a) Work out the total time, in minutes, that Elena spent in the cafe.

..... minutes
(4)

Elena got to the sports centre at 1.30 pm.

She had asked her friend to meet her in the cafe at 3 pm.

(b) Did Elena get to the cafe by 3 pm?

Give a reason for your answer.

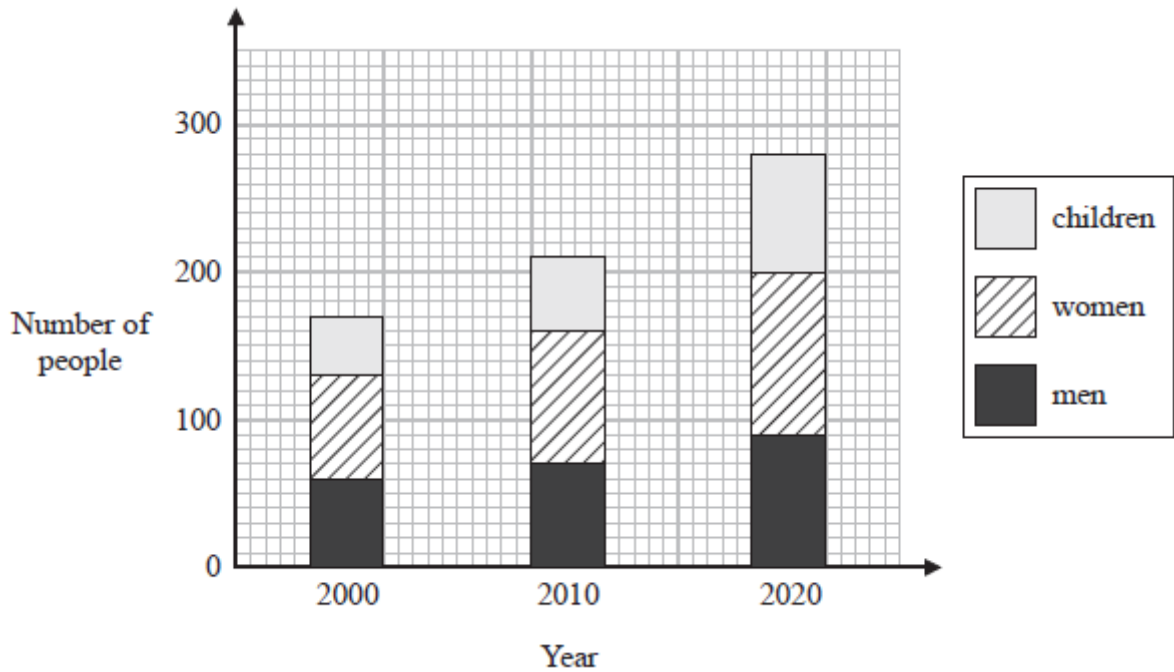
.....
.....
.....
(1)

(Total for Question 25 is 5 marks)

26 Change 40 centimetres into millimetres.

..... millimetres
(Total for Question 26 is 1 mark)

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



(a) Write down the number of men living in the village in the year 2000

.....
(1)

(b) Find the number of children living in the village in the year 2010

.....
(1)

For the people living in the village in the year 2020

(c) find the ratio of the number of children to the **total** number of men and women.

.....
(2)

(Total for Question 27 is 4 marks)

28 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.

(a) Find the probability that the counter is **not** blue.

.....
(2)

The ratio of the number of blue counters to the number of green counters is 2 : 3

(b) Work out the number of green counters in the bag.

.....
(2)

Bradley says,

“The number of red counters in the bag is the same as the number of yellow counters in the bag.”

(c) Can Bradley be correct?
Give a reason for your answer.

.....
.....
.....
(1)

(Total for Question 28 is 5 marks)

- 29 (a) Work out an estimate for the value of 92×1.63
You must show all your working.

.....
(2)

Given that

$$2.96 \times 3.2 = 9.472$$

- (b) find the value of 29.6×32

.....
(1)

(Total for Question 29 is 3 marks)

- 30 Simplify $3 \times w \times 5 \times t$

.....
(Total for Question 30 is 1 mark)

31 A delivery company has a total of 160 cars and vans.

the number of cars : the number of vans = 3 : 7

Each car and each van uses electricity or diesel or petrol.

$\frac{1}{8}$ of the cars use electricity.

25% of the cars use diesel.

The rest of the cars use petrol.

Work out the number of cars that use petrol.

You must show all your working.

.....
(Total for Question 31 is 5 marks)

32 Write 500 as a product of powers of its prime factors.

.....
(Total for Question 32 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS