Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Edexcel Mock Test Papers -Paper1

Test2

Morning (Time: 1 hour 30 minutes) Paper 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, Formulae Sheet (enclosed). Tracing paper may be used.

Total Marks

Instruc tions

- 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 ▶

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write 0.5 as a fraction.

.....

(Total for Question 1 is 1 mark)

2 Work out 2^5

.....

(Total for Question 2 is 1 mark)

3 Work out 40 ÷ (5 + 3)

.....

(Total for Question 3 is 1 mark)

4 Write down a factor of 80 that is between 9 and 17

.....

(Total for Question 4 is 1 mark)

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5 Simplify 6 x p x 8 x r

.....

(Total for Question 5 is 1 mark)

6 Marcus is planning a trip to Legoland for 2 adults and 3 children.

These are the costs for the trip.

Total cost of petrol	£26
Tickets to Legoland	£39 each adult £24.50 each child
Meals	£17 each adult £10 each child

Marcus has £400 to spend.

He pays all the costs.

How much money does he have left?

£.....

(Total for Question 6 is 4 marks)

7 Here is a list of 10 letters.

C B C A A B B B C B

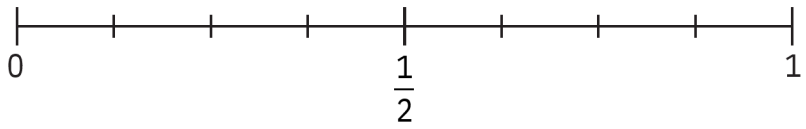
(a) Write down the mode.

.....

(1)

One of the 10 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 7 is 3 marks)

8 (a) Solve $m + 7 = 10$

$m =$ .....

(1)

(b) Solve $4n -$ $n = 36$

$n =$ .....

(2)

(Total for Question 8 is 3 marks)

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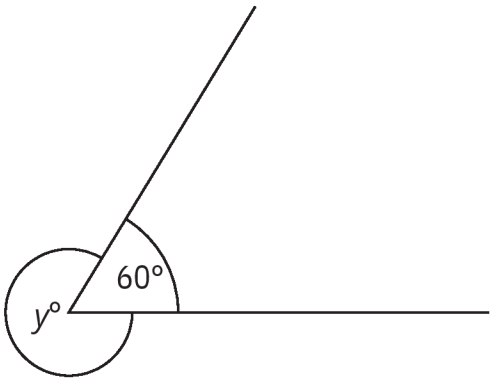
9



(a) Find the value of y .

y = ...

(1)

(b) Give a reason for your answer.

.....

.....

.....

(1)

(Total for Question 9 is 2 marks)

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10 A bookstore sells paperback novels.

Each paperback novel costs £6.
Emma has £35 in her wallet.

(a) Calculate the maximum number of paperback novels Emma can purchase.

.....

(2)

During a special promotion on Friday, paperback novels are sold at sold at half price.

Emma believes that she can now buy exactly 1.5 times the number of paperback novels for £35.

(b) Is Emma correct?

You must give a reason for your answer.

.....

.....

.....

(1)

(Total for Question 10 is 3 marks)

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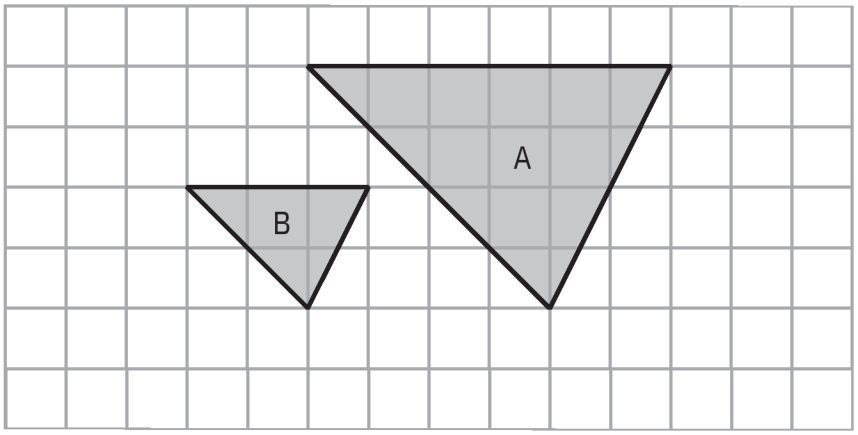
11 Here are two triangles on a grid.



Triangle A is an enlargement of triangle B.

(a) (i) Write down the scale factor of the enlargement.

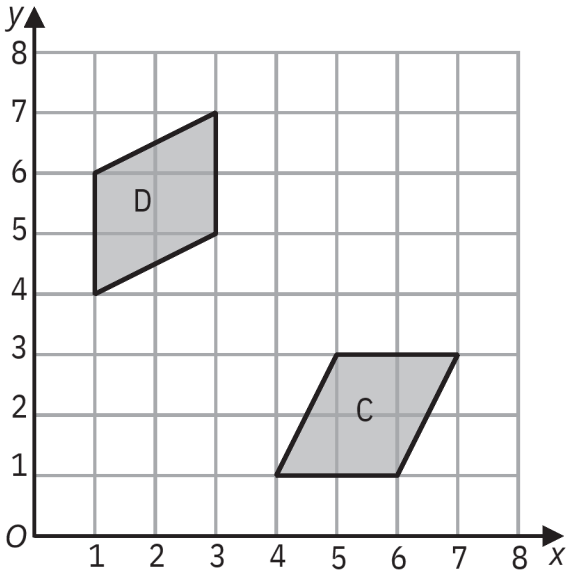
.....

(1)

(ii) On the grid, mark with a cross (×) the centre of enlargement.

(1)

Here are two parallelograms on a coordinate grid.



Parallelogram C is a reflection of parallelogram D.

(b) (i) On the grid, draw the mirror line.

(1)

(ii) Write down an equation of this mirror line.

.....

(1)

(Total for Question 11 is 4 marks)

12 Ivy spent 150 minutes at a sports centre.

She played badminton for 60 minutes.

She used the swimming pool for $\frac{1}{5}$ of the 150 minutes.

She used the gym for 10% of the 150 minutes.
She then spent the rest of the 150 minutes in the cafe.

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

.....minutes
(4)

Ivy got to the sports centre at 2.30 pm. She had asked her friend to meet her in the cafe at 4 pm.

(b) Did Ivy get to the cafe by 4 pm?

Give a reason for your answer.

.....

.....

.....

(1)

(Total for Question 12 is 5 marks)

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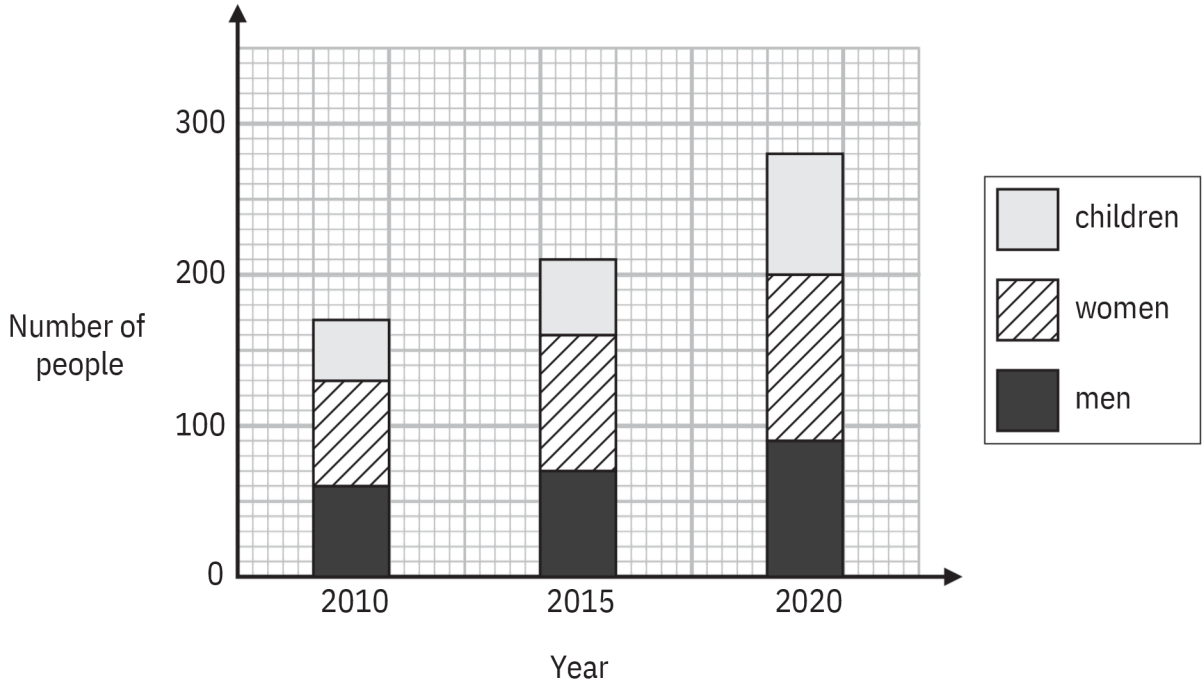
13 The composite bar chart shows information about the number of people living in a town.



(a) Write down the number of women living in the town in the year 2010

.....

(1)

(b) Find the number of children living in the town in the year 2015

.....

(1)

For the people living in the town 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 13 is 4 marks)

14 Chelsea drives from London to Reading at an average speed of 50 miles per hour.

She drives for $\frac{3}{4}$ hours.

(a) Work out the distance from London to Reading.

..... miles

(2)

Sarah is planning a hiking trip using a topographic map.

The map has a scale of 1 : 50,000

On the map, a trail is represented by a line measuring 8 cm in length.

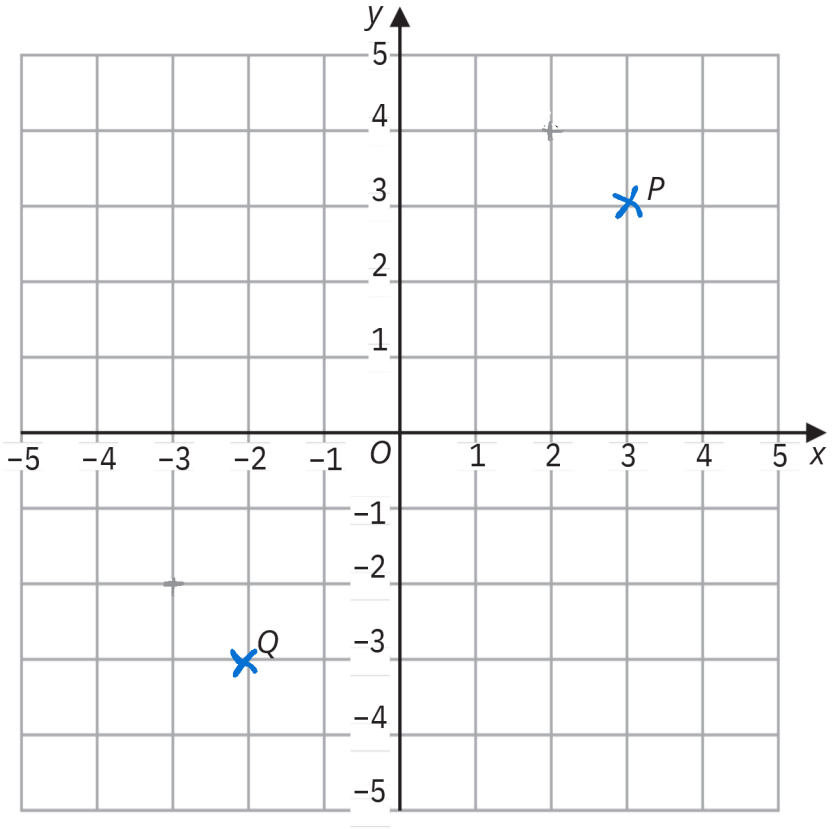
(b) Calculate the actual length of the trail in kilometers.

..... kilometres

(3)

(Total for Question 14 is 5 marks)

15



Find the coordinates of the midpoint of PQ.

(..... , ...)

(Total for Question 15 is 2 marks)

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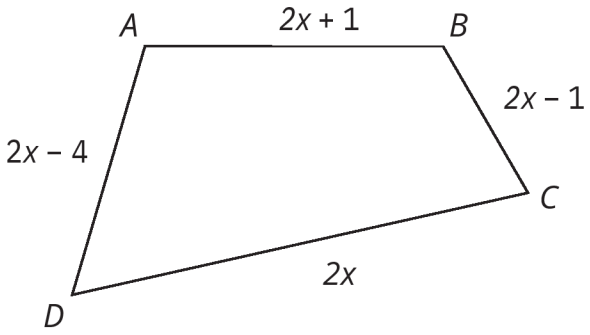
16 Here is a quadrilateral $ABCD$.



All the measurements are in centimetres.

The perimeter of $ABCD$ is 60 centimetres.

Work out the length of AB.

..... centimetres

(Total for Question 16 is 4 marks)

17 There are only green counters, red counters, blue counters and yellow counters in a bag.

The table shows the number of green counters in the bag.

Colour	green	red	blue	yellow
Number of counters	30			

There is a total of 100 counters in the bag. Eeshu takes at random a counter from the bag.

(a) Find the probability that the counter is not green.

.....

(2)

The ratio of the number of green counters to the number of red counters is 3 : 4

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

.....

(2)

Bethany says,

"The number of blue counters in the bag is the same as the number of yellow counters in the bag."

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

.....

.....

.....

(1)

(Total for Question 17 is 5 marks)

18 There are 450 bottles of juice on a shelf.
Each bottle contains apple, orange, or grape juice.

the number of bottles apple juice : the number of bottles orange juice : the number of bottles grape juice = 4 : 3 : 2

1/3 of the bottles of orange juice and 1/6 of the bottles of grape juice are removed from the shelf.

Work out the number of bottles of apple juice as a percentage of the total number of bottles of juice remaining on the shelf.

..... %

(Total for Question 18 is 5 marks)

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19 Write 125 as a product of powers of its prime factors.

.....

(Total for Question 19 is 3 marks)

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20 (a) Work out $5\frac{2}{4} + 2\frac{2}{7}$

Give your answer as a mixed number.

.....

(2)

(b) Show that $\left(\frac{5}{6} \div \frac{2}{3}\right) - \frac{1}{4} = \frac{1}{2}$

(2)

(Total for Question 20 is 4 marks)

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21 Simplify $(3^{-4} \times 3^{6} \times 3)^{3}$

Give your answer as a power of 3

.....

(Total for Question 21 is 2 marks)

22 Work out 0.008×0.45

.....

(Total for Question 22 is 2 marks)

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23 A streaming service is planning to produce four new original series: W, X, Y, and Z.

They surveyed 500 subscribers about which series they would be most likely to watch.

The table shows information about the results.

Series	Number of Subscribers
W	175
X	125
Y	150
Z	50

The streaming service plans to invest in producing 1000 episodes across all four series next year.

Based on the survey results, how many episodes of Series X should they produce?

.....

(Total for Question 23 is 2 marks)

24 Rita writes down three numbers a, b and c

$$a : b = 1 : 2$$
$$b : c = 4 : 5$$

(a) (i) Find $a : b : c$

.....

(2)

(ii) Express a as a fraction of the total of the three numbers a, b and c

.....

(2)

Georgia writes down three numbers m , n and p

$$n = 4m$$
$$p = 3n$$

(b) Find $m : p$

.....

(2)

(Total for Question 24 is 6 marks)

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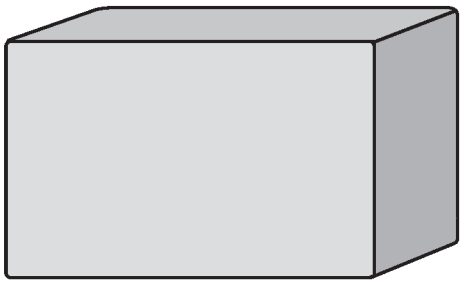
25



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

A storage tank exerts a force of 15 000 newtons on the ground.

The base of the tank in contact with the ground is a 5 m by 3 m rectangle.

Work out the pressure on the ground due to the tank.

..... newtons / m2

(Total for Question 25 is 2 marks)

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26 (a) Solve $4x + 7 < 3(x+5)$

.....

(3)

(b) Factorise $x^2 + 10x + 25$

.....

(2)

(Total for Question 26 is 5 marks)

TOTAL FOR PAPER IS 80 MARKS