Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Pearson Edexcel International GCSE

Thursday 15 May 2025

Morning (Time: 2 hours)

Paper reference **4MA1/1F**

Mathematics A

PAPER 1F
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. 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.
- Without sufficient working, correct answers may be awarded no marks.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- **Calculators may be used.**
- You must **NOT** write anything on the formulae page.
  Anything you write on the formulae page will gain NO credit.

Information

- The total mark for this paper is 100.
- 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.
- Check your answers if you have time at the end.

Turn over ▶

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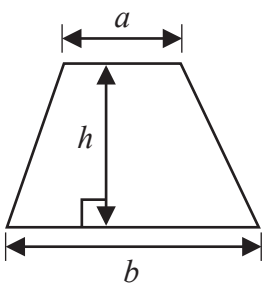
Pearson

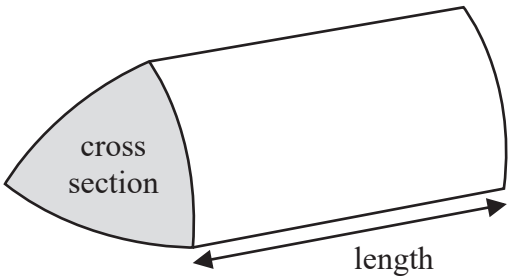
International GCSE Mathematics

Formulae sheet – Foundation Tier

Area of trapezium = $\frac{1}{2}(a + b)h$

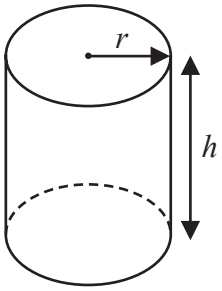


Volume of prism = area of cross section × length



Volume of cylinder = $\pi r^2 h$

Curved surface area of cylinder = $2\pi rh$



Answer ALL TWENTY SIX questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write a number in each box so that each calculation is correct.

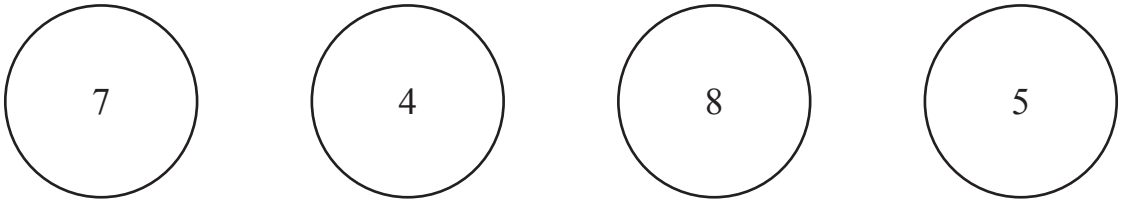
(a) $475 + \square = 1200$

(1)

(b) $180 \times \square = 5760$

(1)

Here are four discs.
There is a number on each disc.



Using each disc only once,

(c) (i) write down the smallest number that can be made,

.....

(1)

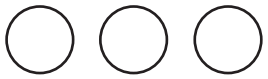
(ii) write down the largest **even** number that can be made.

.....

(1)

(Total for Question 1 is 4 marks)

2 The pictogram shows some information about the number of tyres sold in a garage each month from January to April.

January	
February	
March	
April	
May	

Key:  represents 8 tyres

(a) How many tyres were sold in January?

.....

(1)

(b) Work out the total number of tyres sold in the four months from January to April.

.....

(2)

In May, 22 tyres were sold.

(c) Show this information on the pictogram.

(1)

(Total for Question 2 is 4 marks)

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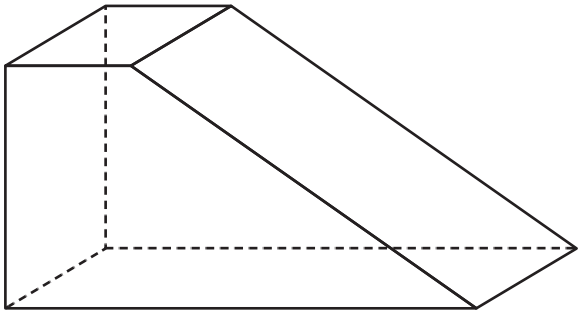
3 Here is a prism.



(a) How many faces has the prism?

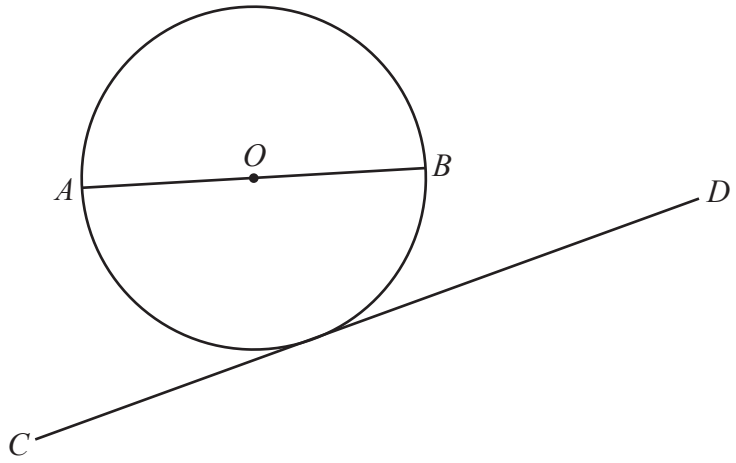
.....

(1)

(b) How many vertices has the prism?

.....

(1)



A and B are points on a circle, centre O

(c) Write down the mathematical name of the line AB

.....

(1)

(d) Write down the mathematical name of the line CD

.....

(1)

(Total for Question 3 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

4 (a) Simplify $4 \times 5e$

.....

(1)

(b) Solve $f + 14 = 29$

$f =$ .....

(1)

(Total for Question 4 is 2 marks)

5 (a) Write 0.6 as a percentage.

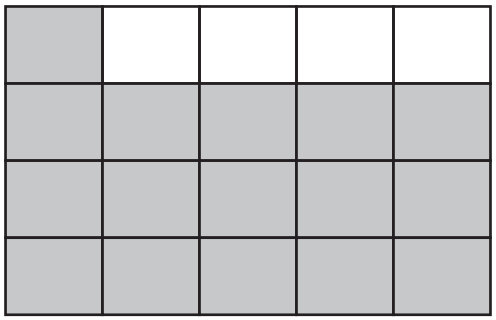
.....%

(1)

(b) Write $\frac{19}{100}$ as a decimal.

.....

(1)



(c) What fraction of this shape is shaded?
Write your fraction in its simplest form.

.....

(2)

(Total for Question 5 is 4 marks)

6 Here are the first four terms of a number sequence.

7 11 15 19

(a) Write down the next term of the sequence.

.....

(1)

(b) Explain how you found your answer to part (a)

.....

.....

(1)

(c) Find the 12th term of the sequence.

.....

(1)

(Total for Question 6 is 3 marks)

7 The normal price of a calculator is £26.80

Amy gets $\frac{1}{4}$ off the normal price with her student discount card.

Amy buys 2 of these calculators.
She pays with a £50 note.

How much change should Amy receive?

£.....

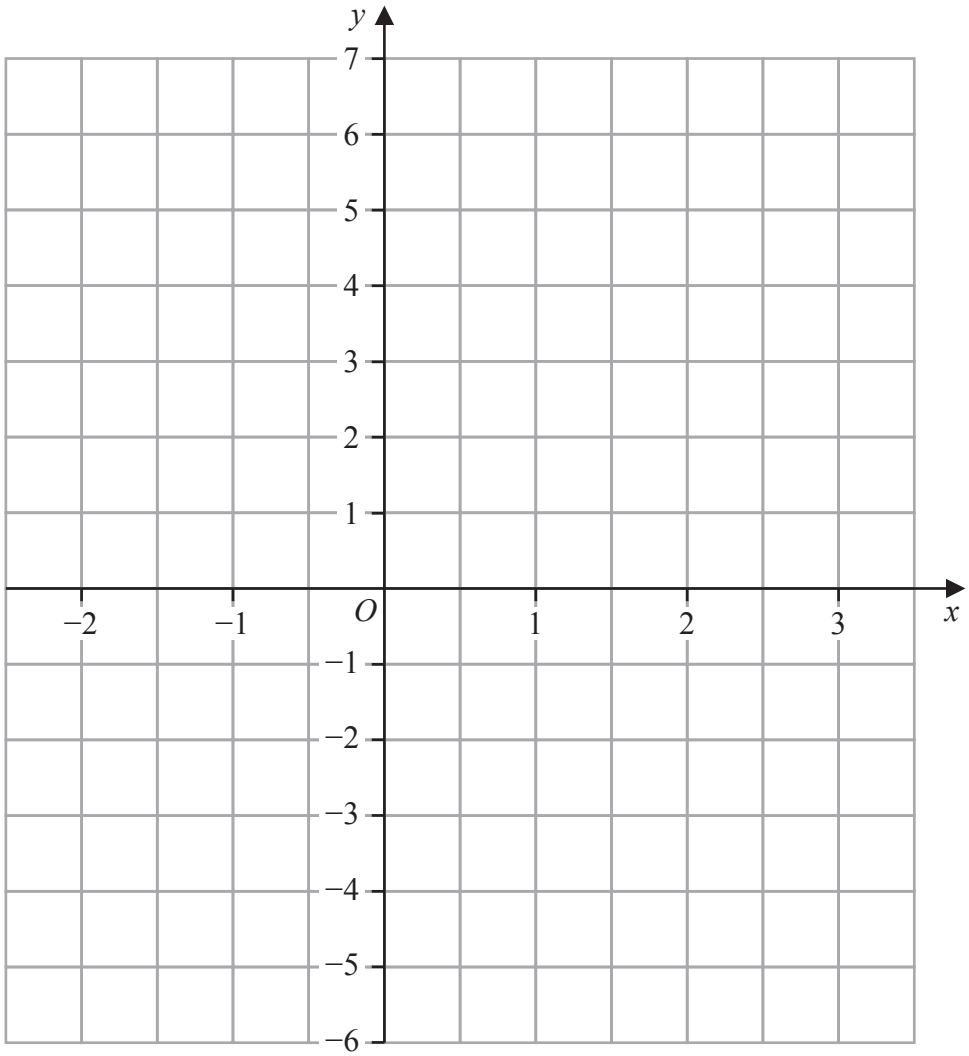
(Total for Question 7 is 4 marks)

8 (a) Complete the table of values for $y = 2x - 1$

x	−2	−1	0	1	2	3
y			−1			5

(2)

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

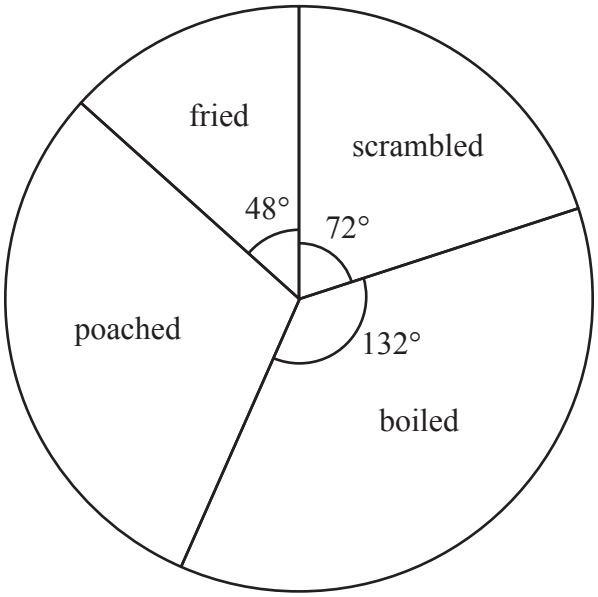


(2)

(Total for Question 8 is 4 marks)

9 Tamsin asked some people how they prefer their eggs cooked.
They could choose scrambled or boiled or poached or fried.

The pie chart shows some information about their answers.



(a) Use the pie chart to complete the table.

Egg	Frequency	Angle of sector
scrambled	6	72°
boiled	.....	132°
poached	.....	.....
fried	.....	48°

(3)

One of these people is selected at random.

(b) Write down the probability that this person chose scrambled.

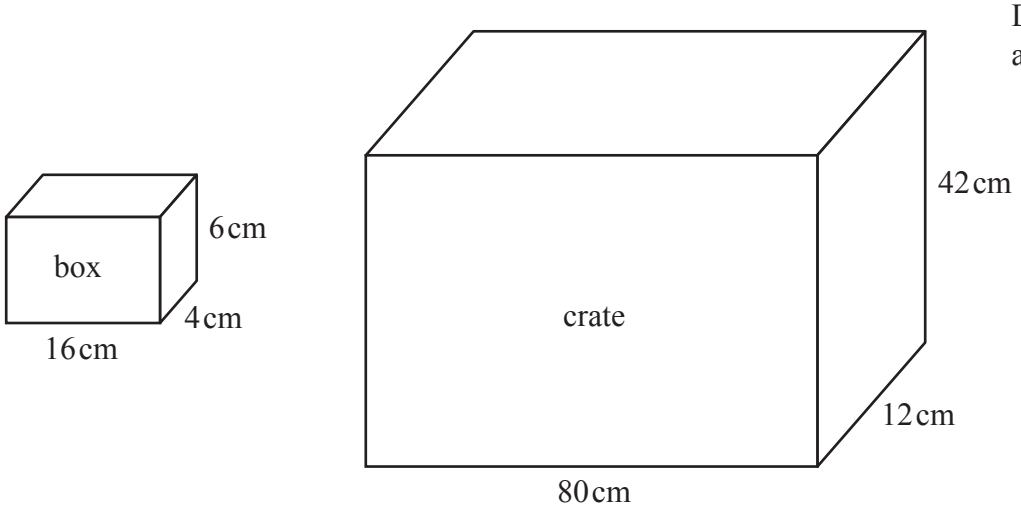
.....

(1)

(Total for Question 9 is 4 marks)

10 Boxes are put into a crate.

Diagram **NOT** accurately drawn



Each box is a cuboid, 16 cm by 4 cm by 6 cm
The crate is a cuboid, 80 cm by 12 cm by 42 cm

Work out the greatest number of boxes that can be put into the crate.

.....

(Total for Question 10 is 3 marks)

11 A shop sells boxes of almonds.

12 of these boxes cost a total of 708 dirhams.

Work out the cost of 5 of these boxes.

..... dirhams

(Total for Question 11 is 2 marks)

12 Seb went into a restaurant at 18 15
He left the restaurant at 21 40

(a) Work out the time that Seb spent in the restaurant.
Give your answer in hours and minutes.

..... hours ..... minutes

(2)

On Friday, the restaurant sold 120 meals.
48 of these meals were vegetarian meals.

(b) What percentage of the meals sold on Friday were vegetarian meals?

.....%

(2)

(Total for Question 12 is 4 marks)

13 Show that $\frac{3}{7}+\frac{1}{4}=\frac{19}{28}$

(Total for Question 13 is 2 marks)

14 (a) Expand $x(x-7)$

.....

(1)

(b) Factorise $8y-10$

.....

(1)

$m = 5a + 7b$

(c) Work out the value of a when $m = 48$ and $b = 3$

$a =$ .....

(3)

(Total for Question 14 is 5 marks)

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DO NOT WRITE IN THIS AREA

15 Adam sells chocolate cakes and lemon cakes.

The ratio

number of chocolate cakes he sells : number of lemon cakes he sells $= 5 : 7$

He sells 40 chocolate cakes.

Adam sells each chocolate cake for \$8.50
He sells each lemon cake for \$12.75

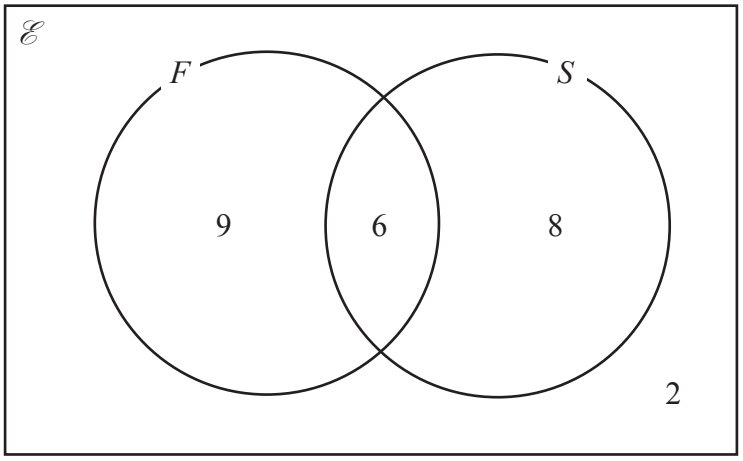
Work out the total amount of money Adam gets for selling the cakes.

\$.....

(Total for Question 15 is 4 marks)

16 Some students were asked if they study French (F) or Spanish (S)

The Venn diagram gives information about the results.
The values shown represent numbers of students.



(a) How many of these students study only French or only Spanish?

.....

(1)

One of these students is chosen at random.

(b) Find the probability that this student studies both French and Spanish.

.....

(2)

(Total for Question 16 is 3 marks)

17 The diagram shows the plan of a stage.

The stage is made up of a rectangle and an isosceles triangle.

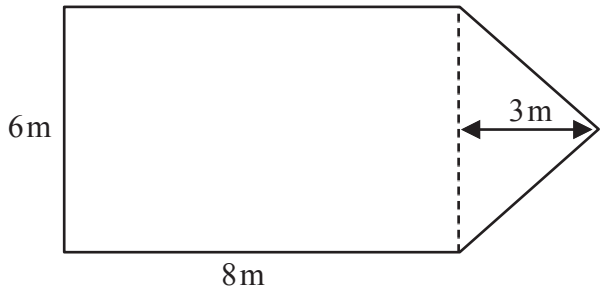


Diagram **NOT** accurately drawn

Yuko is going to cover the stage with varnish.
She needs to buy enough tins of varnish to cover the stage with one coat of varnish.

Each tin of varnish covers an area of $4\ m^2$

Work out the smallest number of tins of varnish that Yuko needs to buy.
Show your working clearly.

.....

(Total for Question 17 is 4 marks)

18 The table gives information about the distances 100 adults travel to work.

Distance (d km)	Frequency
$0 < d \leqslant 5$	26
$5 < d \leqslant 10$	40
$10 < d \leqslant 15$	16
$15 < d \leqslant 20$	10
$20 < d \leqslant 25$	8

(a) Write down the modal class.

.....

(1)

(b) Work out an estimate for the mean distance.

..... km

(4)

(Total for Question 18 is 5 marks)

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DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

19 Anna makes cups.
Each cup costs 6 Swiss francs to make.

Anna puts the cups into boxes to sell.
Each box contains 4 cups.

Anna sells 80 boxes of cups for a total of 2160 Swiss francs.

(a) Work out the percentage profit Anna makes.
Show your working clearly.

.....%
(4)

The height of each cup is 9 cm, correct to the nearest cm

(b) Write down the lower bound of the height.

..... cm
(1)

The weight of each cup is 120 g, correct to the nearest 10 g

(c) Write down the upper bound of the weight.

..... g
(1)

(Total for Question 19 is 6 marks)

20

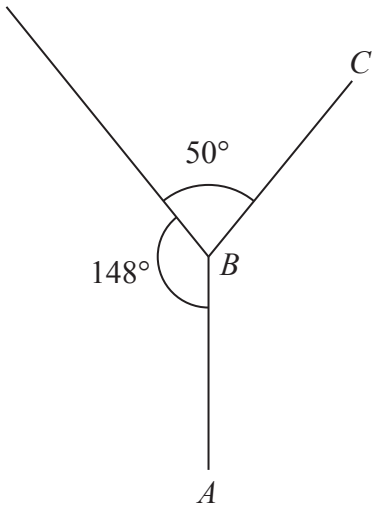

Diagram **NOT** accurately drawn

AB and *BC* are two sides of a regular polygon with *n* sides.

Work out the value of *n*
Show your working clearly.

n = ...

(Total for Question 20 is 4 marks)

21 $x^5 \times x^7 = x^m$

(a) Find the value of m

$m =$ .....

(1)

$y^8 \div y^3 = y^n$

(b) Find the value of n

$n =$ .....

(1)

(c) Simplify fully $(5a^4r^2)^3$

.....

(2)

(Total for Question 21 is 4 marks)

22 In a sale, normal prices are reduced by 28%
The sale price of a watch is 198 euros.

Work out the normal price of the watch.

..... euros

(Total for Question 22 is 3 marks)

23 (a) Solve $x - 4 = \dfrac{3 + 2x}{6}$

Show clear algebraic working.

$x =$ .....

(3)

(b) (i) Factorise $y^2 - 11y + 30$

.....

(2)

(ii) Hence solve $y^2 - 11y + 30 = 0$

.....

(1)

(Total for Question 23 is 6 marks)

24 Here is a solid cylinder.

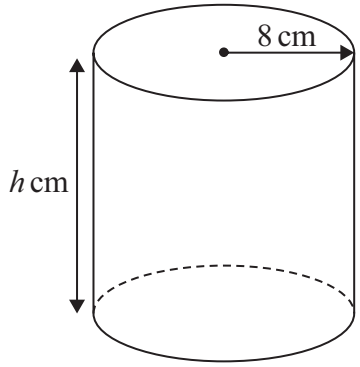

Diagram **NOT** accurately drawn

The radius of the cylinder is 8 cm
The height of the cylinder is h cm

The volume of the cylinder is 3892 cm^3

Work out the value of h
Give your answer correct to one decimal place.

h = ...

(Total for Question 24 is 3 marks)

25 (a) Write 520 million in standard form.

.....

(1)

(b) Write 8.79×10^{-5} as an ordinary number.

.....

(1)

(c) Work out $(5 \times 10^{42}) \times (7 \times 10^{-180})$
Give your answer in standard form.

.....

(2)

(Total for Question 25 is 4 marks)

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26

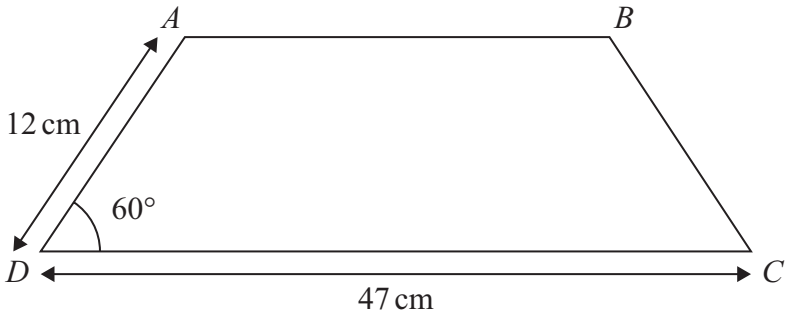

Diagram **NOT** accurately drawn

ABCD is a trapezium with one line of symmetry.

angle $ADC = 60°$ $AD = 12$ cm $DC = 47$ cm

Work out the area of the trapezium.
Give your answer correct to 3 significant figures.
Show your working clearly.

..... cm^2

(Total for Question 26 is 5 marks)

TOTAL FOR PAPER IS 100 MARKS