

Please check the examination details below before entering your candidate information

Candidate surname					Other names				
Centre Number					Candidate Number				

Pearson Edexcel International GCSE (9-1)

Wednesday 4 June 2025

Morning (Time: 2 hours)

Paper reference **4WM2F/01**

Mathematics A (Modular)

UNIT 2F

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 unit 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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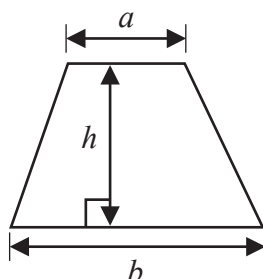



Pearson

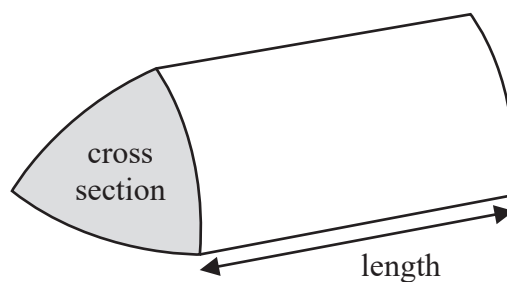
International GCSE Mathematics

Formulae sheet – Foundation Tier

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

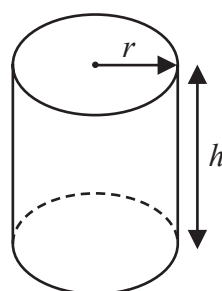


Volume of prism = area of cross section $\times$ length



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

Curved surface area of cylinder = $2\pi r h$



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Answer ALL TWENTY SEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1** Here are the first five terms of a number sequence.

12 16 20 24 28

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

.....
(1)

- (ii) Explain how you found your answer to part (a) (i)

.....
(1)

The 11th term of the sequence is 52

- (b) Work out the 14th term of the sequence.

.....
(1)

- (c) Explain why 83 is not a term of the sequence.

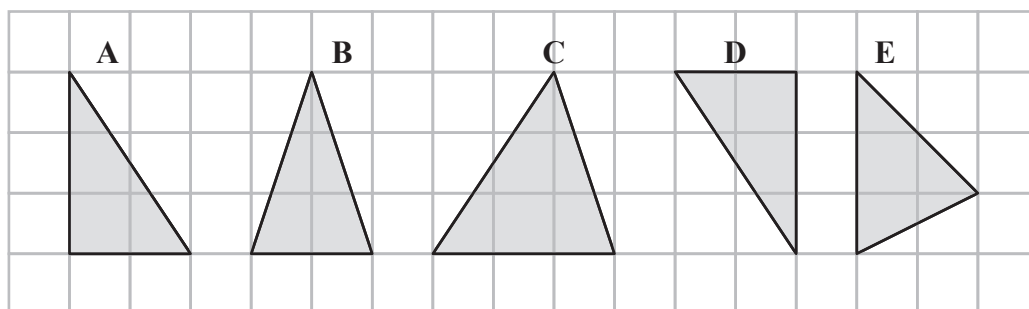
.....
(1)

(Total for Question 1 is 4 marks)



P 8 1 6 4 0 A 0 3 2 8

- 2 The diagram shows five shaded triangles on a grid.



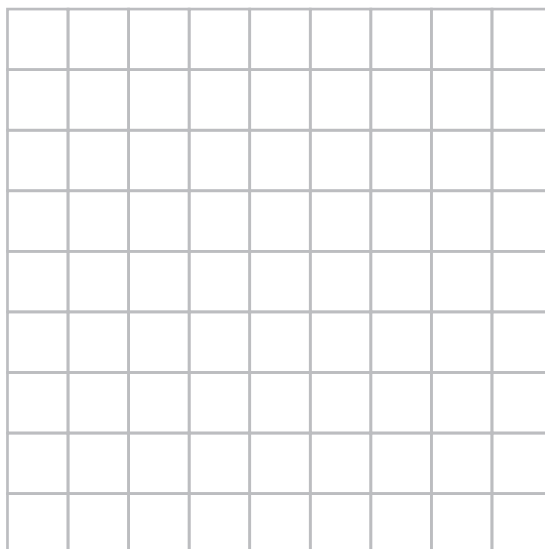
- (a) Write down the letters of the two triangles that are congruent.

..... and
(1)

- (b) Write down the letter of the triangle that has one line of symmetry.

.....
(1)

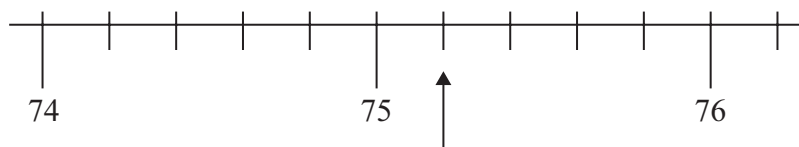
- (c) On the grid below, draw a triangle that is an enlargement, scale factor 2, of triangle E



(2)

(Total for Question 2 is 4 marks)

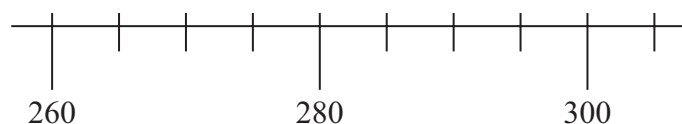
- 3 The diagram shows a number line.



- (a) Write down the number marked with the arrow.

.....
(1)

- (b) On the number line below, mark with an arrow (↑) the number 265



(1)

(Total for Question 3 is 2 marks)

- 4 (a) Write 3 45 pm as a time using the 24-hour clock.

.....
(1)

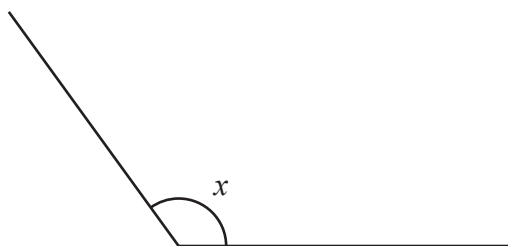
Shan got on a train at 13 50

She got off the train at 16 35 the same day.

- (b) Work out how long Shan was on the train.
Give your answer in hours and minutes.

..... hours minutes
(2)

(Total for Question 4 is 3 marks)



- (a) Measure the size of the angle marked x

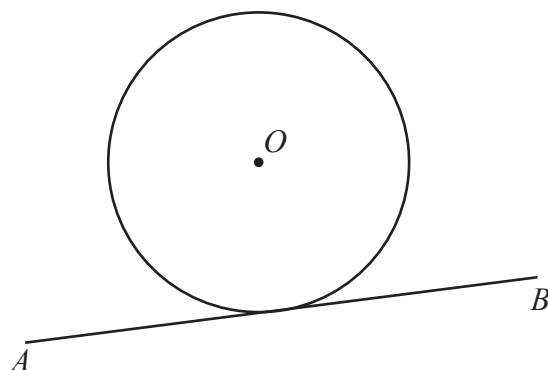
.....
(1)

- (b) From the point marked with a cross ($\times$) draw a line of length 8.4 cm

$\times$

(1)

The diagram shows a circle, centre O



- (c) On the diagram, draw a radius of the circle.

(1)

- (d) Write down the mathematical name for the line AB

.....
(1)



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Here is a rectangle.



(e) Write down the order of rotational symmetry of the rectangle.

.....
(1)

(f) Change 4.3 litres into millilitres.

..... millilitres
(1)

(Total for Question 5 is 6 marks)



P 8 1 6 4 0 A 0 7 2 8

- 6 Zia asks 20 adults to name their favourite African animal.
Here are her results.

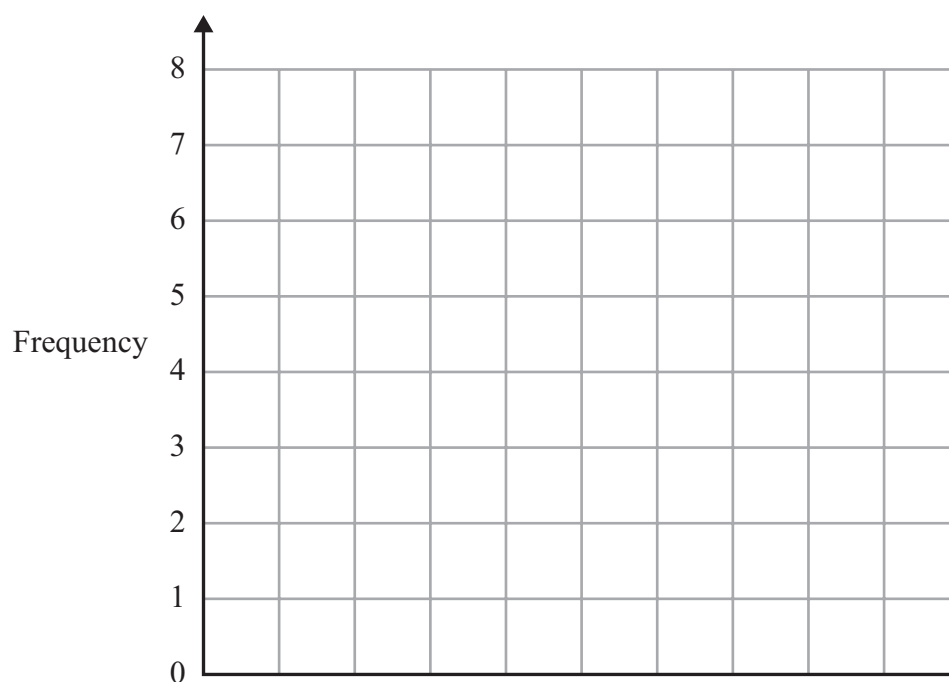
elephant	rhinoceros	rhinoceros	lion	elephant
lion	zebra	elephant	rhinoceros	lion
buffalo	elephant	buffalo	buffalo	elephant
rhinoceros	lion	rhinoceros	elephant	zebra

- (a) Complete the frequency table to show this information.

Animal	Tally	Frequency
elephant		
lion		
buffalo		
rhinoceros		
zebra		

(2)

- (b) Complete the bar chart for the information in your table.



(3)

(Total for Question 6 is 5 marks)



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- 7 5 pineapples cost 12 euros.
3 pineapples and 2 oranges cost 8.30 euros.

Work out the total cost of 1 pineapple and 1 orange.

..... euros

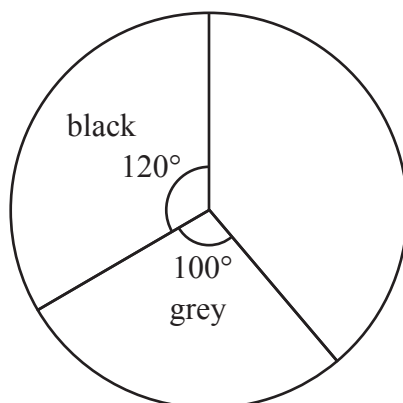
(Total for Question 7 is 4 marks)



- 8 Pete recorded the colour of each of the cars in a car park one afternoon.

He saw only black cars, grey cars, white cars and red cars.

The incomplete pie chart gives some information about his results.



Pete saw 30 black cars.

- (a) Work out how many grey cars Pete saw.

(2)

The ratio

$$\text{number of white cars} : \text{number of red cars} = 2 : 5$$

- (b) Work out the size of the angle in the pie chart for white cars.

(3)

(Total for Question 8 is 5 marks)



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- 9 Roy has 2 litres of orange juice in a jug and some empty cups.
He pours orange juice from the jug to completely fill as many cups as possible.
He pours 180 millilitres of orange juice into each cup.

Work out how much orange juice Roy has left in the jug after he has completely filled
as many cups as possible.
Give your answer in millilitres.

..... millilitres

(Total for Question 9 is 4 marks)



10 (a) Work out 65% of 800

.....
(2)

Calvin has a bag of beads.

There are only pink beads and orange beads in the bag.

The ratio

number of pink beads : number of orange beads = 1 : 4

(b) Work out the percentage of the beads in the bag that are pink.

..... %
(2)

(Total for Question 10 is 4 marks)



11 Lui is asked to work out the value of $30 - 4x$ when $x = -5$

Here is his working and his answer.

$$\begin{aligned} 30 - 4x &= 30 - 4 \times -5 \\ &= 30 - 20 \\ &= 10 \end{aligned}$$

Lui's answer is wrong.

(a) Explain what Lui has done wrong in his working.

(1)

Oni thinks of a number.
She calls the number Y

Y is a **positive, odd** number and $Y \leq 9$

(b) Write down all the possible values of Y

(2)

(Total for Question 11 is 3 marks)

12 (a) Simplify $8 \times a \times c$

(1)

(b) Simplify $7m \times 3p$

(1)

(c) Make t the subject of the formula $q = 7t + e$

(2)

The n th term of a sequence is $5n$

(d) Find the 11th term of the sequence.

(1)

Ben has w sweets.

Ami has 9 more sweets than Ben.

Imran has 4 times as many sweets as Ben.

(e) (i) Write an expression in terms of w for the number of sweets Ami has.

(1)

Ben, Ami and Imran have a total of T sweets.

(ii) Find a formula for T in terms of w
Give your formula in its simplest form.

(2)

(Total for Question 12 is 8 marks)



13 Find the lowest common multiple (LCM) of 20 and 35

(Total for Question 13 is 2 marks)

14 The diagram shows the positions of two villages, A and B

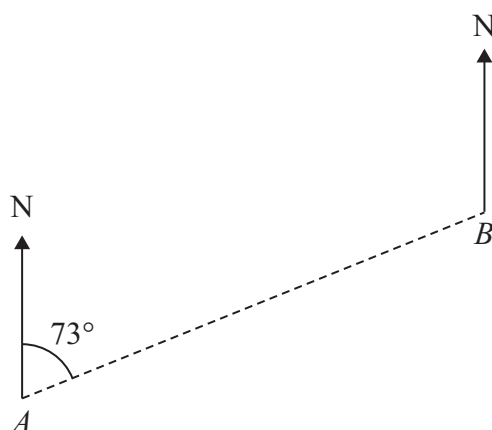


Diagram **NOT**
accurately drawn

The bearing of B from A is 073°

Work out the bearing of A from B

(Total for Question 14 is 2 marks)

15 Here is a list of ingredients to make spaghetti carbonara for 4 people.

Spaghetti carbonara
Ingredients for 4 people

100 g pancetta
50 g cheese
300 g spaghetti
40 g butter
2 eggs

Joe is going to make spaghetti carbonara for 12 people.

(a) Work out how much cheese he needs.

..... g
(2)

Ruhi makes spaghetti carbonara.
She uses 180 g of butter.

(b) Work out how many people Ruhi makes the spaghetti carbonara for.

.....
(2)

(Total for Question 15 is 4 marks)



16 Rio has six cards.

He writes a number on each card so that

the range of the numbers is 10

the median of the numbers is 7.5

the mode of the numbers is 6

Rio arranges the cards so that the numbers are in order of size.

		6		10	14
--	--	---	--	----	----

Three of the numbers are hidden.

Complete the cards above to show the three numbers that are hidden.

(Total for Question 16 is 3 marks)

- 17 The diagram shows a solid prism with a cross section in the shape of a trapezium.

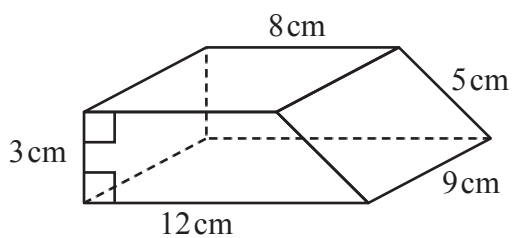


Diagram **NOT**
accurately drawn

Work out the total surface area of the prism.

..... cm²

(Total for Question 17 is 3 marks)



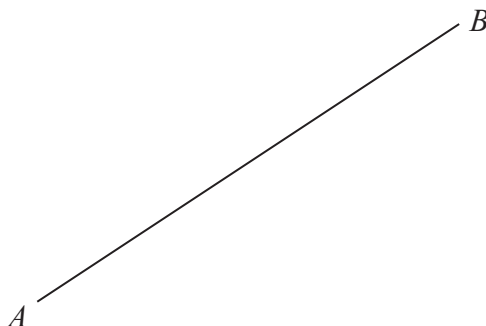
- 18 Bernice bought a car for \$8000
She sold the car for \$5600

Work out Bernice's percentage loss when she sold the car.

..... %

(Total for Question 18 is 3 marks)

- 19 Using ruler and compasses only, construct the perpendicular bisector of the line AB
Show all your construction lines.



(Total for Question 19 is 2 marks)

20 Here are the first five terms of a number sequence.

11 15 19 23 27

(a) Find an expression in terms of n for the n th term of this sequence.

.....
(2)

The n th term of another number sequence is $5n + 4$

Salim says no term in this sequence is a prime number.

(b) Find a term in this sequence that shows Salim is wrong.

.....
(1)

(Total for Question 20 is 3 marks)



21 The diagram shows two similar quadrilaterals, $ABCD$ and $EFGH$

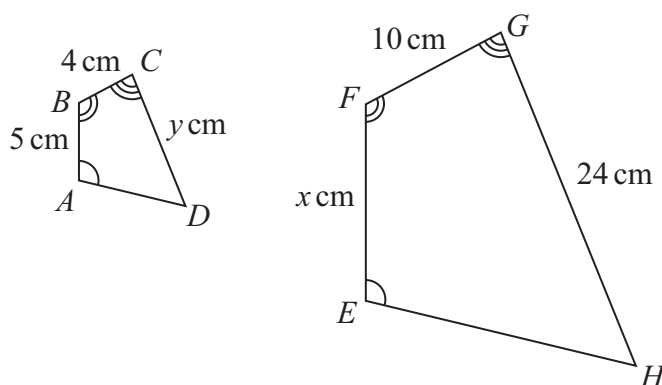


Diagram **NOT**
accurately drawn

$$AB = 5 \text{ cm} \quad BC = 4 \text{ cm} \quad CD = y \text{ cm}$$

$$EF = x \text{ cm} \quad FG = 10 \text{ cm} \quad GH = 24 \text{ cm}$$

(a) Work out the value of x

$$x = \dots\dots\dots (2)$$

(b) Work out the value of y

$$y = \dots\dots\dots (2)$$

(Total for Question 21 is 4 marks)

22 Pau, Sam and Tia share £240 in the ratios 3:4:5

Sam and Tia each give £10 of their share to Pau.

Work out the ratios of the amounts of money that Pau, Sam and Tia now have.
Give your answer in its simplest form.

..... : :

(Total for Question 22 is 4 marks)



- 23 The table gives information about the lengths of time, in minutes, that some people were in a coffee shop.

Length of time (m minutes)	Frequency
$0 < m \leq 10$	x
$10 < m \leq 20$	3
$20 < m \leq 30$	2
$30 < m \leq 40$	4
$40 < m \leq 50$	2

The information in the table is used to calculate an estimate for the mean length of time these people were in the coffee shop.

The estimate for the mean length of time is 20

Work out the value of x

$x = \dots\dots\dots$

(Total for Question 23 is 4 marks)

- 24 Tim buys a bracelet for 4000 Swiss francs.
The value of the bracelet increases by 7% each year.

Work out the value of the bracelet at the end of 3 years.
Give your answer correct to the nearest Swiss franc.

..... Swiss francs

(Total for Question 24 is 3 marks)

- 25 Solve the simultaneous equations

$$\begin{aligned}3x + 5y &= 8 \\4x + y &= -3.5\end{aligned}$$

Show clear algebraic working.

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

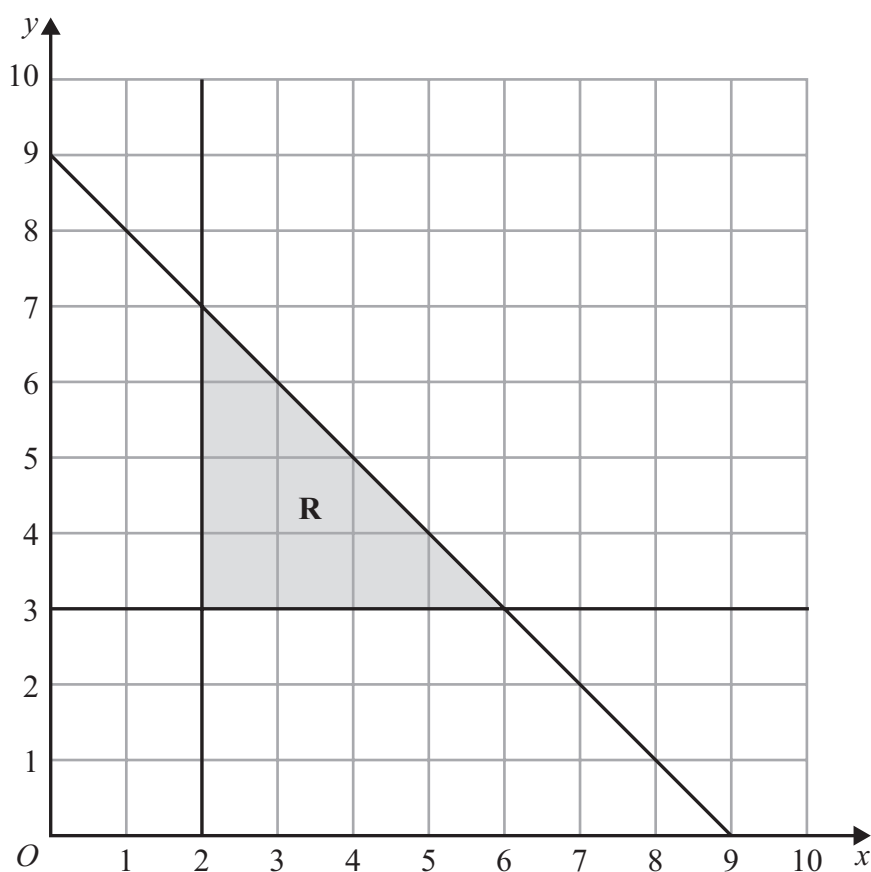
(Total for Question 25 is 3 marks)



26 (a) Solve the inequality $7 - 3t < 2t + 15$

.....
(2)

The region **R**, shown shaded in the diagram, is bounded by three straight lines.



(b) Write down three inequalities that define the region **R**

.....
.....
.....
(3)

(Total for Question 26 is 5 marks)

27 (a) Write 8.6×10^{-5} as an ordinary number.

.....
(1)

(b) Work out $(3 \times 10^{143}) \div (6 \times 10^{137})$

Give your answer in standard form.

.....
(2)

(Total for Question 27 is 3 marks)

TOTAL FOR UNIT IS 100 MARKS



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