

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)

Sample assessment material for first teaching September 2024

Time 2 hours

Paper

reference

4WM1F/01

Mathematics A (Modular)

UNIT 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 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 ►

S81549A

©2024 Pearson Education Ltd.
1/1/1/1

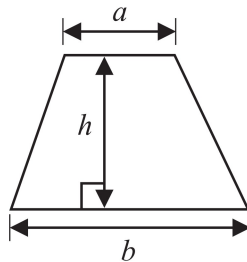


Pearson

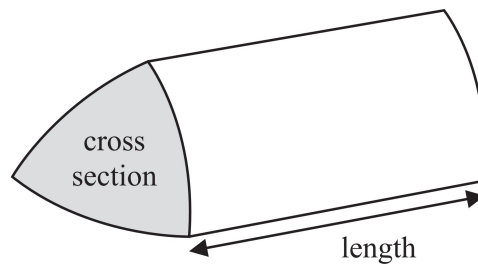
International GCSE Mathematics

Formulae sheet – Foundation Tier

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

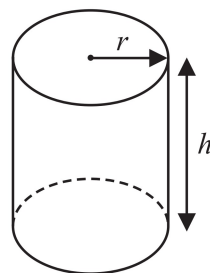


Volume of prism = area of cross section \times length



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

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



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Answer ALL TWENTY FIVE questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Nav found the following table that shows the age, in years, of each of seven cities.

City	Age (years)
Cadiz	3124
Suzhou	2534
Jenin	4469
Nanjing	2516
Gaziantep	5669
Alexandria	2351

- (a) Write down the name of the city with the greatest age.

.....
(1)

- (b) Write the number 2534 in words.

.....
(1)

- (c) Write the number 2351 correct to the nearest ten.

.....
(1)

- (d) Work out the difference between the age of Cadiz and the age of Nanjing.

..... years
(1)

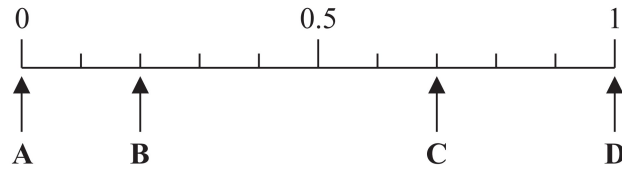
A millennium is 1000 years.

- (e) What is the age of Jenin in whole millenniums?

..... millenniums
(1)

(Total for Question 1 is 5 marks)

2 Here is a probability scale.



In a fruit bowl, there are only

3 bananas

7 pears

Tarek is going to take at random one of the fruits from the bowl.

(a) Write down the letter of the arrow that points to the probability that Tarek will take

(i) a pear,

.....
(1)

(ii) a grape.

.....
(1)

Emma has some carrots, some potatoes and some onions in a bag.

She says that the probability of taking at random a carrot from the bag is 1.4

Emma is not correct.

(b) Explain why.

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

(Total for Question 2 is 3 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

3 (a) Write 0.3 as a percentage.

..... %
(1)

(b) Write $\frac{29}{100}$ as a decimal.

.....
(1)

(c) Write $\frac{17}{20}$ as a decimal.

.....
(1)

(d) Write these numbers in order of size.
Start with the smallest number.

-7 8 -9 16 -3

.....
(1)

(e) Write these numbers in order of size.
Start with the smallest number.

0.044 0.104 0.04 0.009 0.2

.....
(1)

There are 400 cars in a car park.

$\frac{3}{10}$ of the cars are grey.

(f) Work out how many of the cars in the car park are **not** grey.

.....
(2)

(Total for Question 3 is 7 marks)

4 Here is a list of numbers.

3 6 7 8 11 25 27

(a) From the numbers in the list, write down

(i) an even number

.....
(1)

(ii) a multiple of 9

.....
(1)

(iii) a square number

.....
(1)

(iv) a prime number

.....
(1)

(b) Use brackets to make the statement correct.

You may use more than one pair of brackets in the statement.

$$2^2 + 5 \times 2 + 3^2 = 99$$

(1)

(Total for Question 4 is 5 marks)

- 5 The table gives information about the costs of sending parcels of different weights.

Weight (w kg)	Cost of sending a parcel
$0 < w \leq 1$	£6.00
$1 < w \leq 2$	£9.02
$2 < w \leq 5$	£15.85
$5 < w \leq 10$	£21.90

Dani has one parcel of weight 1.3 kg and another parcel of weight 8 kg to send to two different places.

- (a) Work out the total cost of sending these two parcels.

£.....
(2)

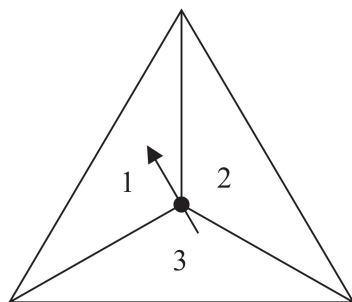
Lucas sends 3 parcels each to a different place.
One of the parcels has a weight of 1.5 kg and another of the parcels has a weight of 2.8 kg
The total cost of sending the 3 parcels is £33.89

- (b) Work out the greatest possible weight of the third parcel.

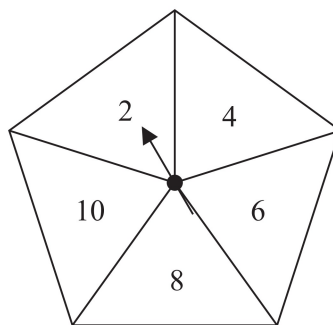
..... kg
(3)

(Total for Question 5 is 5 marks)

- 6 Jian has two fair spinners.
 Spinner A is 3-sided and can land on 1, 2 or 3
 Spinner B is 5-sided and can land on 2, 4, 6, 8 or 10



Spinner A



Spinner B

Jian spins each spinner once.

He adds together the number that spinner A lands on and the number that spinner B lands on to get his total score.

- (a) Complete the table to show all possible total scores.
 Five of the total scores have been done for you.

		Spinner A		
		1	2	3
Spinner B	2	3		
	4			7
	6	7		
	8		10	
	10		12	

(2)

- (b) Find the probability that

(i) Jian's total score is an odd number

.....
(1)

(ii) Jian's total score is less than 9

.....
(1)

(Total for Question 6 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

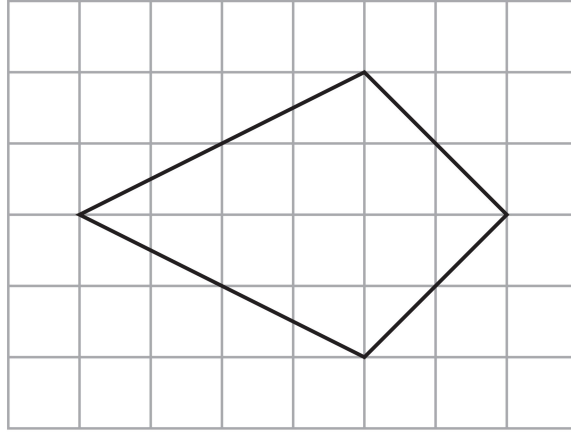
DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

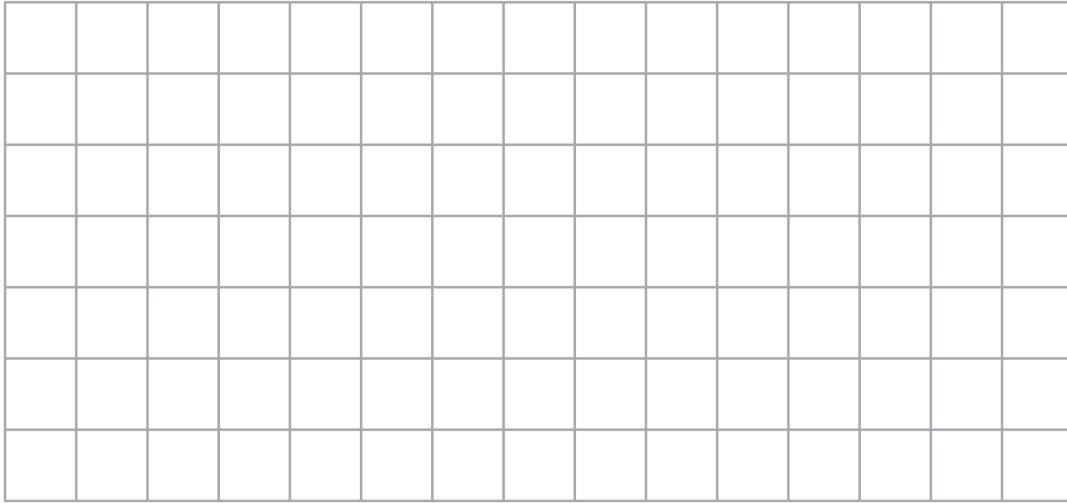
DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

7 The diagram shows a kite drawn on a centimetre grid.



On the centimetre grid below, draw a rectangle that has the same area as the kite.



(Total for Question 7 is 3 marks)

8 (a) Simplify $12g - 8e - 5g + 6e$

.....
(2)

$$A = 3b - 5c$$

(b) Work out the value of A when $b = 12$ and $c = 4$

$A =$
(2)

(c) Solve $4p + 9 = 24$

$p =$
(2)

(Total for Question 8 is 6 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

9 Iman wants to go on a boat at the seaside.

At the seaside there are 20 boats.

Of these boats

2 are white

5 are blue

7 are green

6 are yellow

Iman selects at random one of these boats.

Write down the probability that she selects

(a) a green boat,

.....
(1)

(b) a white boat or a yellow boat.

.....
(2)

(Total for Question 9 is 3 marks)

10 Sophia spends a total of £6.30 on cheese.

She buys 500 g of Cheddar cheese and 200 g of Stilton cheese.

The cost of the Cheddar cheese is £9.20 for 1 kg

Work out the cost of 1 kg of the Stilton cheese.

£.....

(Total for Question 10 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

11 Caroline buys a bag in Sweden.

The price of the bag is 1342 Swedish Krona.

The price of an identical bag in Finland is 125 euros.

Using an exchange rate of

$$1 \text{ euro} = 11 \text{ Swedish Krona}$$

work out how much cheaper the bag is in Sweden than it is in Finland.

You must give the units of your answer.

.....
(Total for Question 11 is 3 marks)

12 The diagram shows two parallel lines AB and DEF

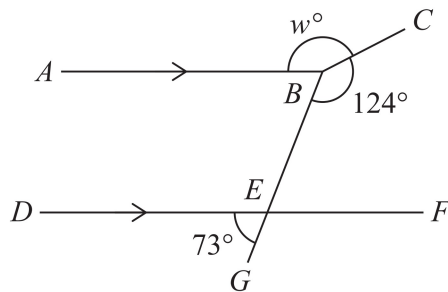


Diagram **NOT** accurately drawn

BEG is a straight line.

$$\text{angle } DEG = 73^\circ \quad \text{angle } EBC = 124^\circ \quad \text{angle } ABC = w^\circ$$

Work out the value of w

Give reasons for each stage of your working.

$$w = \dots\dots\dots$$

(Total for Question 12 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

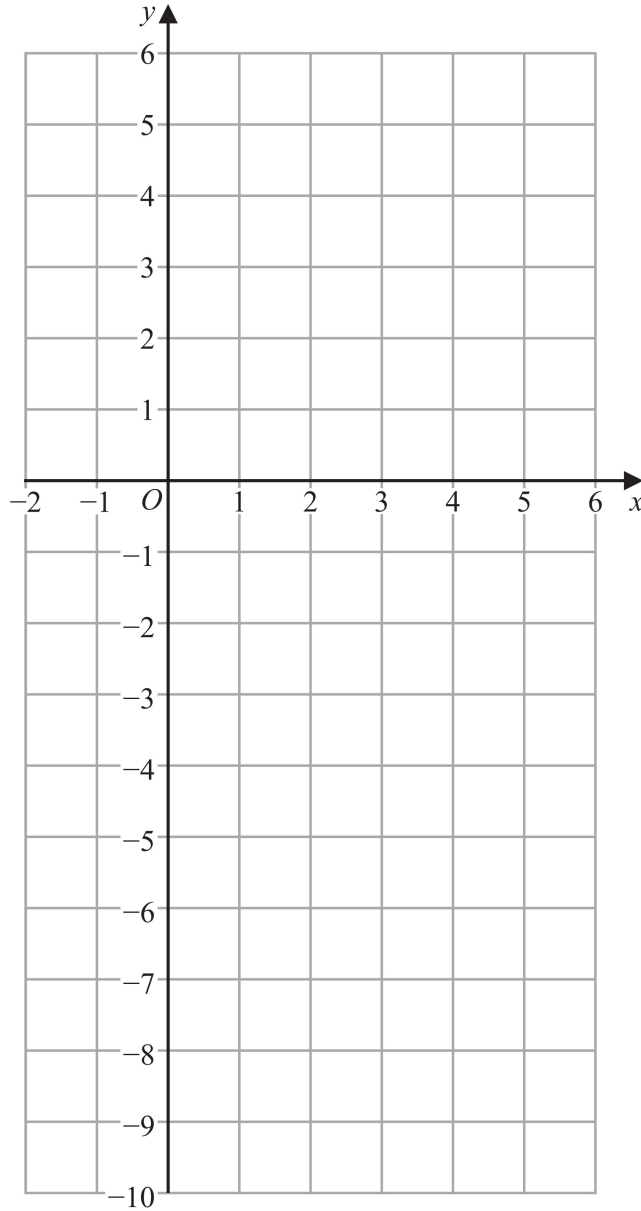
DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

13 On the grid, draw the graph of $y = -2x + 3$ for values of x from -1 to 5



(Total for Question 13 is 3 marks)

14 Use your calculator to work out the value of

$$\frac{5.21 + 6.37}{9.8} + 8.3^2$$

Write down all the figures on your calculator display.

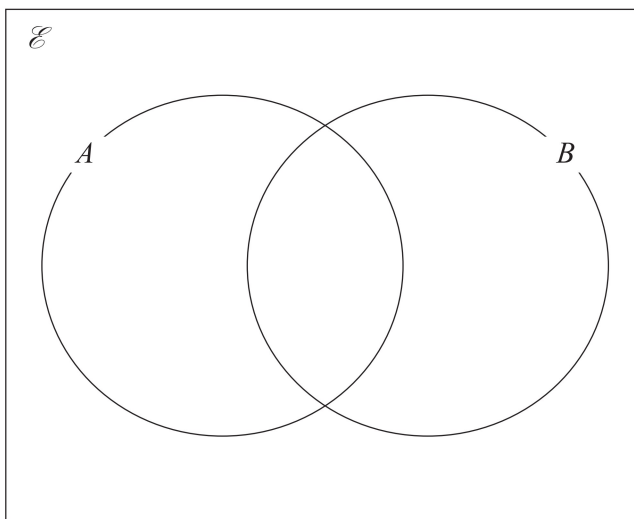
.....
(Total for Question 14 is 2 marks)

15 $\mathcal{E} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$$A = \{2, 3, 7, 8, 9\}$$

$$B = \{1, 2, 4, 5, 7, 8, 10\}$$

Complete the Venn diagram for this information.



(Total for Question 15 is 3 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

16 The weight of a cake is 2.75 kg, correct to 2 decimal places.

Write down the lower bound of the weight of the cake.

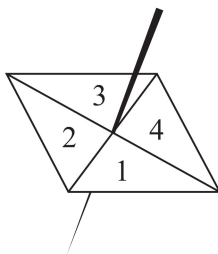
..... kg

(Total for Question 16 is 1 mark)

17 Show that $5\frac{1}{3} - 2\frac{6}{7} = 2\frac{10}{21}$

(Total for Question 17 is 3 marks)

18 Here is a biased 4-sided spinner.



The table gives the probabilities that, when the spinner is spun once, it will land on 1 or it will land on 3

Number	1	2	3	4
Probability	0.26		0.18	

The probability that the spinner will land on 2 is equal to the probability that the spinner will land on 4

Priya is going to spin the spinner 250 times.

Work out an estimate for the number of times the spinner will land on a 1 or a 2

.....
(Total for Question 18 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

19 (a) Expand and simplify $(n - 6)(n + 4)$

.....
(2)

(b) Solve $2x - 3 = \frac{3x - 5}{4}$

Show clear algebraic working.

$x =$
(3)

(Total for Question 19 is 5 marks)

20 A plane flies from New York City to Los Angeles.

The plane flies a distance of 3980 kilometres in 5 hours 24 minutes.

Work out the average speed of the plane.

Give your answer in kilometres per hour correct to the nearest whole number.

..... kilometres per hour

(Total for Question 20 is 3 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

21 The diagram shows an 8-sided shape $ABCDEFGH$

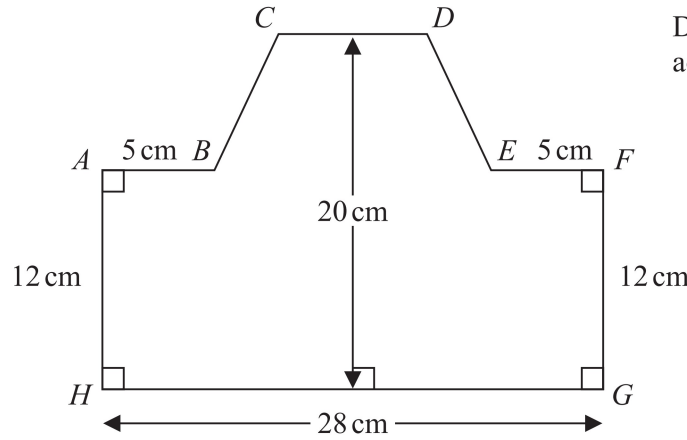


Diagram **NOT** accurately drawn

$$HG = 28 \text{ cm} \quad AH = FG = 12 \text{ cm} \quad AB = EF = 5 \text{ cm}$$

The height of the shape is 20 cm

CD is parallel to HG

The area of shape $ABCDEFGH$ is 434 cm^2

Find the length of CD

..... cm

(Total for Question 21 is 4 marks)

22 (a) Simplify $8 \times (4t)^0$

.....
(1)

$$x^6 \div x^{-5} = x^p$$

(b) Find the value of p

$p =$
(1)

(c) Simplify fully $(2k^2m^4)^3$

.....
(2)

(Total for Question 22 is 4 marks)

23 Change a speed of 81 kilometres per hour to a speed in metres per second.

..... metres per second

(Total for Question 23 is 3 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

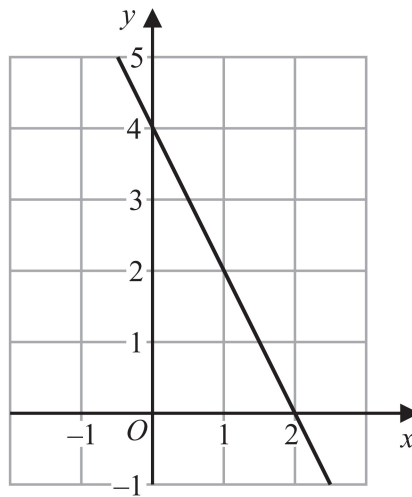
24 (a) Simplify $3a^4b^5 \times 4a^7b^2$

.....
(2)

(b) Factorise fully $14x^2y^4 + 21x^3y^2$

.....
(2)

The diagram shows a straight line drawn on a grid.



(c) Find an equation of the line.

.....
(2)

A different straight line has equation $y = 3x - 5$

(d) Write down the coordinates of the point at which the line crosses the y -axis.

(.....,)
(1)

(Total for Question 24 is 7 marks)

25 The diagram shows a quadrilateral $ABCD$

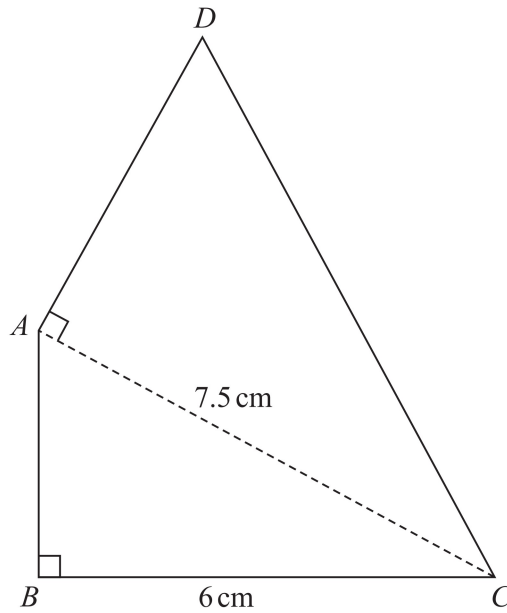


Diagram **NOT** accurately drawn

In the diagram, ABC and DAC are right-angled triangles.

$$BC = 6 \text{ cm} \quad AC = 7.5 \text{ cm}$$

The area of quadrilateral $ABCD$ is 31.5 cm^2

(a) Work out the length of AB

..... cm
(2)

(b) Work out the length of AD

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

..... cm

(4)

(Total for Question 25 is 6 marks)

TOTAL FOR UNIT IS 100 MARKS