Write your name and class in the boxes below before you start.

Candidate surname	Other names

Class	Teacher	Date

DNEP Education

GCSE Resit · Predicted Paper 1 · November 2026

Time: **90 minutes**

Paper reference

DNEP/OCR1FN26

Mathematics

PREDICTED PAPER 1 — NOVEMBER 2026

Foundation Tier · OCR J560 style · Calculator

Questions written for DNEP Education in the style of OCR GCSE (9–1) Mathematics J560 papers.

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

/ 100

Topics in this paper

Topic (lesson)	Questions	Marks
Statistics	1, 8, 18	14
Number	2, 6, 16, 20	14
Fractions, decimals and percentages	3, 19, 21	10
Geometry and measures	4, 14, 17, 22, 23, 25	22
Money and ratio	5, 9, 11, 12	18
Algebra	7, 10, 15, 24	17
Probability	13	5
		Total 100

Instructions

- Use black ink or ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page with your name, class, teacher and the date.
- Answer all 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.
- You may use a calculator.

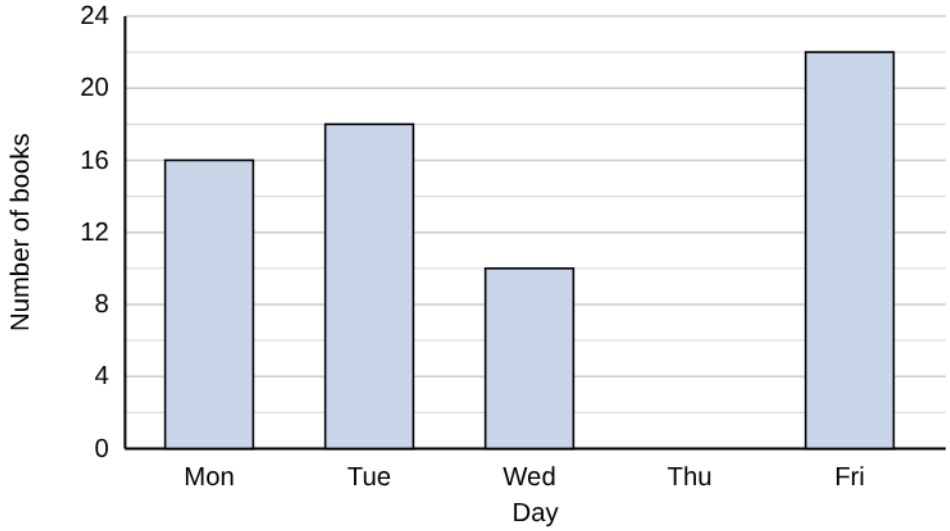
Information

- The total mark for this paper is 100.
- The marks for each question are shown in brackets — use this as a guide to how much time to spend on each question.
- When you have finished, mark your answers with your teacher and complete the RAG feedback page at the back.
- This is a predicted paper. No-one can know what will be on the real paper, so revise the whole course, not just these topics.

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.

1 The bar chart shows the number of books a library lent out on four days last week.



(a) How many books were lent out on Tuesday?

.....

[1]

(b) 14 books were lent out on Thursday.
Draw the bar for Thursday on the bar chart.

[1]

(c) Work out the total number of books lent out from Monday to Friday.

.....

[2]

(d) What fraction of these books were lent out on Friday?
Give your answer in its simplest form.

.....

[2]

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2 Here is a list of numbers.

9 12 17 27 30 36

From the list, write down

(a) a prime number,

..... **[1]**

(b) a square number,

..... **[1]**

(c) a cube number,

..... **[1]**

(d) a factor of 60.

..... **[1]**

3 Complete the table.

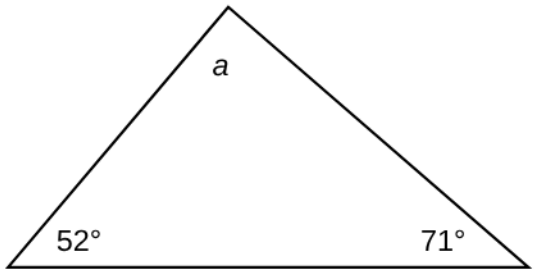
Write each fraction in its simplest form.

Fraction	Decimal	Percentage
$\frac{3}{4}$		
	0.2	
		35%

[3]

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4 **(a)**



Not to scale

Work out the size of angle *a*.
Give a reason for your answer.

..... ° **[2]**

Reason .....

(b) Jo says, "A triangle can have two obtuse angles."
Explain why Jo is wrong.

.....

.....

[1]

5 A baker has 2.4 kg of flour.
She uses all the flour to make bread and cakes in the ratio
bread : cakes = 5 : 3

How many grams of flour does she use for cakes?

..... g **[3]**

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6 **(a)** Work out $\frac{\sqrt{(17.8 + 6.3^2)}}{2.4}$

Give your answer correct to 3 significant figures.

.....

[2]

(b) Insert brackets to make this calculation correct.

$$4 + 6 \times 3 - 1 = 20$$

[1]

7 **(a)** Simplify $3x + 5y - x + 2y$

.....

[1]

(b) Expand $5(2a + 3)$

.....

[1]

(c) Factorise $12m - 8$

.....

[1]

(d) Simplify $t^5 \times t^2$

.....

[1]

8 Here are four numbers.

4 9 6 10

(a) Work out the range of these numbers.

.....

[1]

(b) A fifth number is added to the list.
The mean of the five numbers is 7.
Work out the fifth number.

.....

[2]

DO NOT WRITE IN THIS AREA

9 Here is a recipe for 8 biscuits.

8 biscuits
120 g butter 60 g sugar 180 g flour

Tom wants to make 20 biscuits.
He has 250 g of butter, 200 g of sugar and 500 g of flour.

Does Tom have enough of each ingredient?
Show how you decide.

[4]

10 A gym charges a joining fee of £15 and then £x for each visit.
Ria joins the gym and visits 12 times.
She pays £81 altogether.

(a) Write an equation in terms of x.

..... **[2]**

(b) Solve your equation to find the cost of each visit.

£ ..... **[2]**

(c) Max joins the gym and pays £48 altogether.
How many times did Max visit the gym?

..... **[1]**

DO NOT WRITE IN THIS AREA

11 Leah is paid £12.40 per hour for the first 37 hours she works each week.
For every hour over 37 hours she is paid time-and-a-half.

(a) One week Leah works 43 hours.
Work out how much she is paid that week.

£ ..... **[3]**

(b) Next year Leah's hourly rate will increase by 3.5%.
Work out her new hourly rate.
Give your answer to the nearest penny.

£ ..... **[3]**

12 Sana cycles 38.4 km in 1 hour 36 minutes.

(a) Work out her average speed in kilometres per hour.

..... km/h **[3]**

(b) Sana cycles 54 km at the same average speed.
How long does this take her? Give your answer in hours and minutes.

..... **[1]**

(c) Write down one assumption you made in part (b).

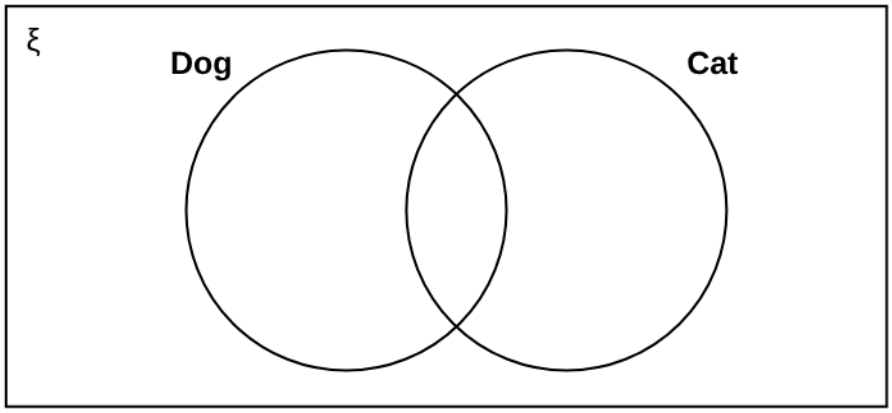
.....

[1]

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13 50 people were asked if they have a dog or a cat.
28 people have a dog.
19 people have a cat.
8 people have both a dog and a cat.

(a) Complete the Venn diagram.



[3]

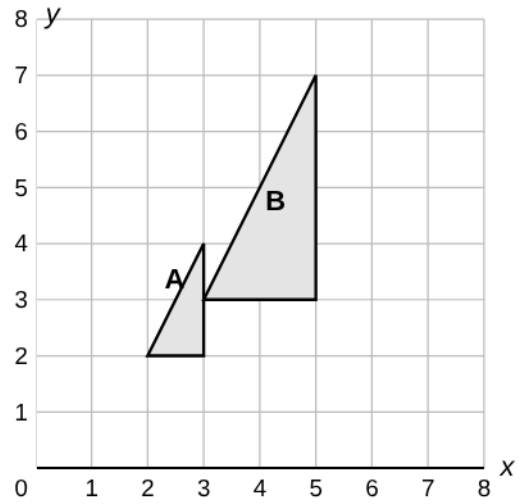
(b) One of the 50 people is chosen at random.
Find the probability that this person has a cat but not a dog.

..... **[1]**

(c) One of the people with a cat is chosen at random.
Find the probability that this person also has a dog.

..... **[1]**

14



Describe fully the single transformation that maps triangle A onto triangle B.

.....

.....

[3]

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15 **(a)** Factorise $x^2 + x - 20$

..... **[2]**

(b) Hence solve $x^2 + x - 20 = 0$

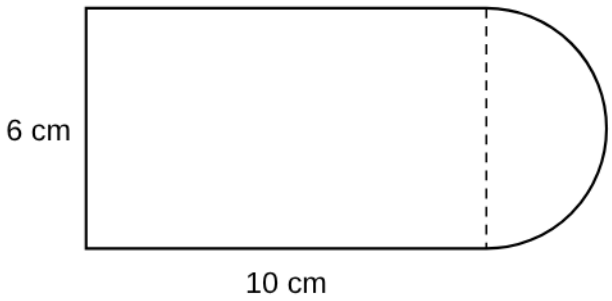
..... **[1]**

16 At a bus station, a number 12 bus leaves every 12 minutes.
A number 18 bus leaves every 18 minutes.
Both buses leave the station at 8:15 am.

What is the next time that both buses leave the station together?

..... am **[4]**

17 The shape is made from a rectangle and a semicircle.



Not to scale

Work out the area of the shape.
Give your answer correct to 3 significant figures.

..... cm^2 **[4]**

DO NOT WRITE IN THIS AREA

18 The table shows the time, t minutes, that 30 students spent on homework one evening.

Time, t minutes	Frequency
$0 < t \leq 20$	6
$20 < t \leq 40$	11
$40 < t \leq 60$	9
$60 < t \leq 80$	4

(a) Work out an estimate of the mean time.
Give your answer correct to 1 decimal place.

..... minutes **[4]**

(b) Explain why your answer to part (a) is an estimate.

.....

[1]

19 Dev buys a car for £14 500.
The value of the car decreases by 12% each year.

(a) Work out the value of the car after 3 years.
Give your answer to the nearest pound.

£ ..... **[3]**

(b) After how many complete years will the value of the car first be less than £7000?

..... **[1]**

DO NOT WRITE IN THIS AREA

20 **(a)** The mass of the Earth is 5.97×10^{24} kg.

The mass of the Moon is 7.35×10^{22} kg.

How many times heavier is the Earth than the Moon?

Give your answer correct to 3 significant figures.

..... **[2]**

(b) Write 0.000 038 in standard form.

..... **[1]**

21 In a sale, all prices are reduced by 15%.

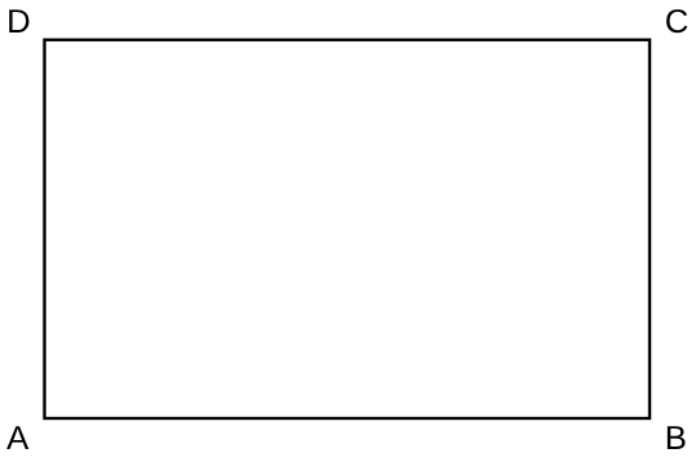
The sale price of a jacket is £57.80

Work out the price of the jacket before the sale.

£ ..... **[3]**

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22 The scale drawing shows a rectangular garden ABCD.
The scale is 1 cm to 1 m.



A tree is to be planted in the garden.
The tree must be

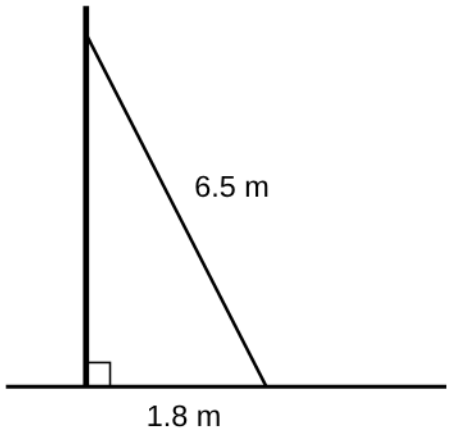
- more than 3 m from corner A, and
- closer to side AB than to side AD.

Use ruler and compasses to show the region where the tree can be planted.
Shade the region.

[5]

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23 A ladder 6.5 m long leans against a vertical wall.
The foot of the ladder is on horizontal ground, 1.8 m from the wall.



Not to scale

(a) Work out how far up the wall the ladder reaches.
Give your answer correct to 3 significant figures.

..... m **[3]**

(b) For safety, the height up the wall must be no more than 4 times the distance of the foot of the ladder from the wall.
Is the ladder safe? Show how you decide.

[1]

24 At a cinema, 3 adult tickets and 2 child tickets cost £47.
1 adult ticket and 4 child tickets cost £39.

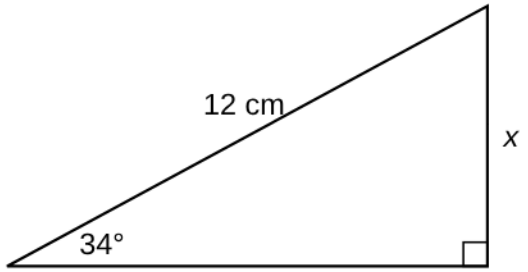
Work out the cost of one adult ticket and the cost of one child ticket.

Adult £ .....

Child £ ..... **[5]**

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25 Here is a right-angled triangle.



Not to scale

Work out the length x.
Give your answer correct to 3 significant figures.

..... cm **[3]**

TOTAL FOR PAPER IS 100 MARKS

Now mark your paper and complete the RAG feedback page overleaf.

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Your results and next steps (RAG feedback)

Mark your paper with the mark scheme. Write your mark for each question, then colour one circle: GREEN = full marks · AMBER = some marks · RED = no marks. Use the topic table to decide which lessons to revisit.

Q	Topic (lesson)	Calc?	Marks	My mark	R A G
1	Statistics	Yes	6		
2	Number	Yes	4		
3	Fractions, decimals and percentages	Yes	3		
4	Geometry and measures	Yes	3		
5	Money and ratio	Yes	3		
6	Number	Yes	3		
7	Algebra	Yes	4		
8	Statistics	Yes	3		
9	Money and ratio	Yes	4		
10	Algebra	Yes	5		
11	Money and ratio	Yes	6		
12	Money and ratio	Yes	5		
13	Probability	Yes	5		
14	Geometry and measures	Yes	3		
15	Algebra	Yes	3		
16	Number	Yes	4		
17	Geometry and measures	Yes	4		
18	Statistics	Yes	5		
19	Fractions, decimals and percentages	Yes	4		
20	Number	Yes	3		
21	Fractions, decimals and percentages	Yes	3		
22	Geometry and measures	Yes	5		
23	Geometry and measures	Yes	4		
24	Algebra	Yes	5		
25	Geometry and measures	Yes	3		
			Total 100		= _____ %

Your results and next steps (continued)

By topic

Topic (lesson)	Questions	My marks	R	A	G
Statistics	1, 8, 18	____ / 14	○	○	○
Number	2, 6, 16, 20	____ / 14	○	○	○
Fractions, decimals and percentages	3, 19, 21	____ / 10	○	○	○
Geometry and measures	4, 14, 17, 22, 23, 25	____ / 22	○	○	○
Money and ratio	5, 9, 11, 12	____ / 18	○	○	○
Algebra	7, 10, 15, 24	____ / 17	○	○	○
Probability	13	____ / 5	○	○	○

What went well (my GREEN topics)

Even better if (my RED / AMBER topics)

Lessons I will revisit (lesson numbers) and how:

Teacher comment

Signed: _____

How likely is each topic on November Paper 1?

Based on the 8 November OCR J560 Foundation Paper 1s we analysed (Nov17–Nov24). Chance = how many of those November papers tested the topic. The real paper can test anything on the specification, so use this to decide what to revise first, not what to leave out. The November 2025 paper is not included.

Very likely (75%+) Likely (50%+) Possible (25%+) Unlikely (under 25%)

Topic	Nov papers	Chance	Last Nov	This paper
Simplify, expand, factorise, substitute	8 of 8	100%	Nov24	Q7
Factors, multiples, primes, squares, cubes	7 of 8	88%	Nov24	Q2
Percentages	7 of 8	88%	Nov24	Q11
Ratio	7 of 8	88%	Nov24	Q5
Linear equations, function machines	7 of 8	88%	Nov24	Q10
Coordinates and straight-line graphs	7 of 8	88%	Nov24	—
Pythagoras and trigonometry	7 of 8	88%	Nov23	Q23, Q25
Charts and tables (bar, pictogram, pie…)	7 of 8	88%	Nov24	Q1
Measuring, shapes, nets, plans	7 of 8	88%	Nov24	—
FDP, place value and ordering	6 of 8	75%	Nov24	Q3
Units, time, scale drawings, bearings	6 of 8	75%	Nov23	Q5
Speed, density, pressure	6 of 8	75%	Nov24	Q12
Money and best-buy problems	6 of 8	75%	Nov24	Q11
Prime factors, HCF and LCM	6 of 8	75%	Nov24	Q16
Proportion, recipes, inverse proportion	6 of 8	75%	Nov24	Q9
Circles and π	5 of 8	62%	Nov24	Q17
Multiply/divide fractions, fraction of amount	5 of 8	62%	Nov24	—
Negatives, BIDMAS, powers and roots	5 of 8	62%	Nov24	Q6
Constructions and loci	5 of 8	62%	Nov24	Q22
Rounding, estimation, error intervals	4 of 8	50%	Nov24	Q6
Compound interest and depreciation	4 of 8	50%	Nov24	Q19
Quadratics	4 of 8	50%	Nov24	Q15
Simultaneous equations	4 of 8	50%	Nov23	Q24
Standard form ★	4 of 8	50%	Nov22	Q20
Venn diagrams	4 of 8	50%	Nov23	Q13
Similarity & congruence	4 of 8	50%	Nov24	—
Perimeter, area, volume	3 of 8	38%	Nov23	Q17
Sequences and nth term	3 of 8	38%	Nov22	—
Transformations ★	3 of 8	38%	Nov20	Q14
Probability	3 of 8	38%	Nov21	Q13
Frequency trees and tree diagrams	3 of 8	38%	Nov23	—
Scatter graphs	3 of 8	38%	Nov24	—
Averages and range	2 of 8	25%	Nov24	Q8, Q18
Inequalities	2 of 8	25%	Nov23	—
Angles, parallel lines, polygons	2 of 8	25%	Nov24	Q4
Index laws ★	2 of 8	25%	Nov22	Q7
Written × and ÷ (including decimals) ★	2 of 8	25%	Nov22	—
Reverse percentages ★	1 of 8	12%	Nov21	Q21
Vectors	1 of 8	12%	Nov24	—
Add and subtract fractions, mixed numbers ★	1 of 8	12%	Nov22	—

★ = not on recent November papers, so it may be due. — in the last column = not in this paper: revise it separately.