

MR BRADDER MATHS

Mr Bradder Maths

Predicted Paper 2

June 2025 VERSION 2

You may use:

- Geometrical instruments
- Tracing paper

Do not use:

A calculator





First name	
Last name	
Centre number	Candidate number

INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Complete the boxes above with your name, centre number and candidate number.
- Answer all the questions.
- Read each question carefully before you start to write your answer.
- Where appropriate, your answers should be supported with working. Marks may be given for a correct method even if the answer is incorrect.
- Write your answer to each question in the space provided.
- Additional paper may be used if required but you must clearly show your candidate number, centre number and question number(s).
- Do not write in the barcodes.

INFORMATION

- The total mark for this paper is 102
- The marks for each question are shown in brackets [].
- This document consists of 20 pages.

1 This bar chart shows the average monthly expenditure, by category, of households in a particular town in 2005 and 2015.



(a) In which category was there a decrease in the average monthly expenditure between 2005 and 2015?

(a) ENTERTAINMENT [1]

(b) How much more was the average monthly expenditure on housing in 2015 than in 2005? $2015 = \frac{1}{2}480 \qquad 560 - 480$ $2005 = \frac{1}{2}560 \qquad (b) \quad \pounds \dots & \pounds 0 \qquad [2]$ (c) The total average monthly expenditure in 2005 was £1200. What percentage of this was spent on transport? $2005 \quad TeAJSPOET = 240 \qquad 240 = \frac{20}{100} = 20\%$

2 (a) Work out



3

(a) Complete each statement by writing the missing value in the box.

(i)
$$\frac{1}{4} = \frac{2}{8}$$
 [1]
(ii) $1\frac{2}{7} = \frac{9}{7}$ [1]



(a) Insert one pair of brackets to make the calculation correct.

5 x 7 + <mark>(</mark> 1 + 9)= 45	
5x7+ 10	
36 + 10 = 45 1	[1]

5 (a) Complete the following.

4

- (i) 7²= 49 (7×7)
- (ii) ³√27 =3 3 × 3 × 3 = 27

[1]

[1]



6 (a) Write these fractions as decimals.



(b) A plank of wood 1.2 m long is cut into 6 pieces of equal length.

How long is each piece?

5 × 12 = 60

60 + 2 = 30

12 cm

5 cm





20 cm

 30×20 = 600

[3]

[2]

8 This probability scale shows the probability of picking a blue counter from a bag of counters.



(a) Write down, as a fraction, the probability of picking a blue counter.



(b) On the probability scale above, mark with an arrow (1) the probability of not picking a blue counter.



9

Viraj cycled from his home to visit his aunt. He drew this graph to show his journey. He stopped at a shop 7 km from his home.



the a house andient	
Was a Didder Graditert	[1]

Cupcake ingredients
Makes 20 cupcakes
120g flour
140g butter
4 eggs
60g cocoa powder
50 ml of water

(a) How many eggs does he need to make 80 cupcakes?

(a)[1] X4 (80 calues = 16 eggs) X4

(b) How much butter is needed to make 2 cupcakes?

÷10 (20 cabes = 140g) ÷ 10 ÷10 (2 cabes = 14g) ÷ 10 (b) 14_____g[2]

(c) Rashid has 125 ml of water and plenty of the other ingredients. What is the most amount of cupcakes Rashid can make

[3] 50 ml = 20 cales 50 ml = 20 cales 25 ml = 10 cales 125ml = 50 cales



(a) Construct the bisector of angle ABC. Show all your construction lines.

[2]

(b) Construct the perpendicular bisector of BC. Show all your construction lines.

[2]

- (c) Shade the region which is
 - nearer to BC than to AB and
 - nearer to B than to C.

[1]

(d) Multiply out and simplify. (2x + 5)(x - 3) (2x + 5)(x - 3)



13 A jacket has its price reduced by 10% in a sale.

3c(d – 4)

The sale price is £72.

Work out the price of the jacket before the sale.



14 By rounding each value to one significant figure, estimate the cost of 5.2 kg of apples at 77p per kg.

5 x 80p = 400p

15 Here is the floor plan of a rectangular room.

(ii) -2 x -5







17 Here are the first four terms of a sequence.



		_		(b)
S	-	く	9-5	

(b)[2	2		
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19 AB and CD are parallel lines.

EF and FB are straight lines.



a) Work out x giving a reason for your answer



b) Work out y giving a reason for your answer



20 Solve by factorising.





21 In a survey, 110 people were asked whether they have a car (C) or a bicycle (B).

The Venn diagram shows some of the results.

$$||0-10-1| = 99$$

The ratio of those that only have a car to those that only have a bicycle is 8 : 1.

One of the 50 people is chosen at random.

Find the probability that they have a car.

You must show your working.

Cor = 98

9 ports 9 $qq \div 9 = 11$ $8 \times 11 = 88$ $1 \times 11 = 11$

......[5]

22 Circle the value of sin 30°.

23 In this question, all lengths are in centimetres.

The diagram shows an equilateral triangle and a square.



The perimeter of each shape is 36 cm.

a) Write down an algebraic expression for the perimeter of the triangle

b) Form and solve an equation to find a

$$9a = 36$$
 [2]
 $z = 4$ $z = 4$

c) Write down an algebraic expression for the perimeter of the square



[2]

24 Imran joins two tiles together as shown below.One tile is a regular hexagon and the other tile is a regular pentagon.



(a) Show that angle *a* is 132°.

$360 \div 6 = 60$	360 + 5 = 72
180 - 66 = 120	180 - 72 = 108
g - 360 - 120	5 -108
- 132	[3]

- the probability that it will rain on Monday is 0.55 and
- the probability that it will rain on Tuesday is 0.25.

Ella draws a tree diagram to show this information.



[3]