



GCSE

3300U10-1

MONDAY, 14 NOVEMBER 2022 – MORNING

MATHEMATICS

UNIT 1: NON – CALCULATOR

FOUNDATION TIER

1 hour 30 minutes plus your additional time allowance

THE USE OF A CALCULATOR IS NOT PERMITTED IN THIS EXAMINATION

Surname: _____

First name(s): _____

Centre Number: _____

Candidate Number: **0** _____

For Examiner's use only

Question	Maximum Mark	Mark Awarded
1.	6	
2.	2	
3.	2	
4.	5	
5.	2	
6.	2	
7.	2	
8.	3	
9.	3	
10.	2	
11.	3	
12.	2	
13.	2	
14.	2	
15.	3	
16.	4	
17.	3	
18.	3	
19.	3	
20.	2	
21.	2	
22.	2	
23.	5	
Total	65	

(Turn over)

ADDITIONAL MATERIALS

A ruler, a protractor and a pair of compasses may be required.

ITEMS INCLUDED WITH QUESTION PAPER

A separate Formula List.

A separate Diagram Booklet.

Cut out shapes for Question 13.

The Diagram Booklet MUST be handed in to the invigilators and sent for marking.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball – point pen, black felt tip or your usual method.

Write your name, centre number and candidate number in the spaces on the front cover.

Answer ALL questions.

Write your answers in the spaces provided.

If you run out of space, use the additional page(s) at the back of the booklet.

Question numbers must be given for the work written on the additional page(s).

Take π as 3.14

INFORMATION FOR CANDIDATES

You should give details of your method of solution when appropriate.

Unless stated, diagrams are not drawn to scale.

Scale drawing solutions will not be acceptable where you are asked to calculate.

The number of marks is given in brackets at the end of each question or part – question.

In question 4, the assessment will take into account the quality of your organisation, communication and accuracy in writing.

1. (a) Write the number sixty – three thousand and twenty – nine in figures.

[1 mark]

- (b) Write 2481 correct to the nearest 10

[1 mark]

continued on the next page . . .

(Turn over)

Question 1 continued

1. (c) Multiply 291 by 7

[1 mark]

(d) Subtract 513 from 842

[1 mark]

continued on the next page . . .

(Turn over)

Question 1 continued

1. (e) A number is multiplied by 4 and then doubled.

The answer is **56**

What is the number?

The number is _____

[2 marks]

2. Write down the next number in each of the following sequences.

(a) 67 73 79 85 _____

[1 mark]

(b) 103 92 81 70 _____

[1 mark]

3. Look at the diagram for Question 3 in the separate Diagram Booklet.

The diagram shows a shape drawn on a grid of squares.

Each square on the grid represents 1 cm^2

Estimate the area of the shape.

Area of the shape = _____ cm^2

[2 marks]

4. IN THIS QUESTION, YOU WILL BE ASSESSED ON THE QUALITY OF YOUR ORGANISATION, COMMUNICATION AND ACCURACY IN WRITING.

A customer buys 7 identical small boxes and 3 identical large boxes from a shop.

The total cost of these boxes is £59

Each small box costs £5

How much does each large box cost?

You must show all your working.

[3 marks + 2 marks OCW]

5. Here is a list of eight numbers.

7 4 9 5 4 5 3 4

(a) What is the range of these eight numbers?

Range = _____

[1 mark]

(b) What is the mode of the eight numbers listed above?

Circle the correct answer.

3	4	5	7	9
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[1 mark]

(Turn over)

6. (a) Write these numbers in order, starting with the smallest number.

-2 -5 4 0

smallest

biggest

[1 mark]

- (b) Write these numbers in order, starting with the smallest number.

3.78 3.91 3.69 3.8

smallest

biggest

[1 mark]

(Turn over)

7. Mary has 6 oranges and 11 apples in a bag. She chooses one piece of fruit from the bag at random.

What is the probability that Mary chooses an apple?

[2 marks]

9. A car passes through four places in the following order: Aber, Berw, Ceiro and Dinas. The car passes through Aber, Berw and Ceiro at the times shown in the table below.

PLACE	TIME
Aber	13:30
Berw	14:40
Ceiro	16:30
Dinas	

The time taken to travel from Aber to Berw is **TWICE** the time taken to travel from Ceiro to Dinas.

At what time does the car pass through Dinas?
You must show all your working.

10. Solve the following equations.

(a) $11k = 99$

[1 mark]

(b) $18 - p = 6$

[1 mark]

(Turn over)

11. Look at the diagram for Question 11 in the separate Diagram Booklet. The diagram is NOT drawn to scale.

The diagram shows triangle ***ABC***.

Use a ruler and a protractor to make an accurate drawing of triangle ***ABC*** in the space below the diagram.

[3 marks]

12. Using only the numbers in the following list,

31 33 35 37 39 41 43

find

(a) the multiple of **5.5**

The multiple of **5.5** is _____

[1 mark]

continued on the next page . . .

(Turn over)

Question 12 continued

Using only the numbers in the following list,

31 33 35 37 39 41 43

find

12. (b) the factor of 111

The factor of 111 is _____

[1 mark]

**13. Look at the diagram for Question 13
in the separate Diagram Booklet.**

**The diagram shows some shaded squares
on a grid.**

**Shade the least number of squares so that
the grid has rotational symmetry of order 2**

**The squares you shade must be in the
lower two quadrants.**

Cut out squares are available for this question.

[2 marks]

14. Two friends, Geraint and Dyfrig, are having a discussion.

(a) Geraint says,

“All prime numbers are odd numbers.”

Explain why Geraint is incorrect.

[1 mark]

continued on the next page . . .

(Turn over)

Question 14 continued

14. (b) Dyfrig says,

“All cube numbers are odd numbers.”

Explain why Dyfrig is incorrect.

[1 mark]

Total number of £10 notes = _____

Total number of £5 notes = _____

[3 marks]

Question 16 continued

16. (b) Simplify the expression

$$6c - 7d - 2c - 8d$$

[2 marks]**(Turn over)**

17. In a restaurant, as part of a Set Meal, customers must choose a starter, main course and dessert from the options below.

SET MEAL		
STARTER	MAIN COURSE	DESSERT
Melon (M) or Soup (S)	Chicken (C) or Ham (H) or Pizza (P)	Fruit (F) or Yoghurt (Y)

Look at the table for Question 17 in the separate Diagram Booklet.

List all the possible different combinations of starters, main courses, and desserts that the restaurant offers.

One has been done for you.

[3 marks]

(Turn over)

[3 marks]

21. The n th term of a sequence is given by $3n - 13$

Write down the value of

(a) the 10th term,

[1 mark]

(b) the 4th term.

[1 mark]

(Turn over)

22. Samira has a dice.

Its faces are numbered 1 to 6

She wants to know whether her dice is biased or not.

Samira rolled this dice 300 times.

Look at the table for Question 22

in the separate Diagram Booklet.

Her results are shown in the table.

The relative frequency of throwing a 5

is $\frac{23}{300}$

What is the relative frequency of throwing a 2?

Give your answer as a fraction in its simplest form.

[2 marks]

(Turn over)



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Diagram Booklet

Surname: _____

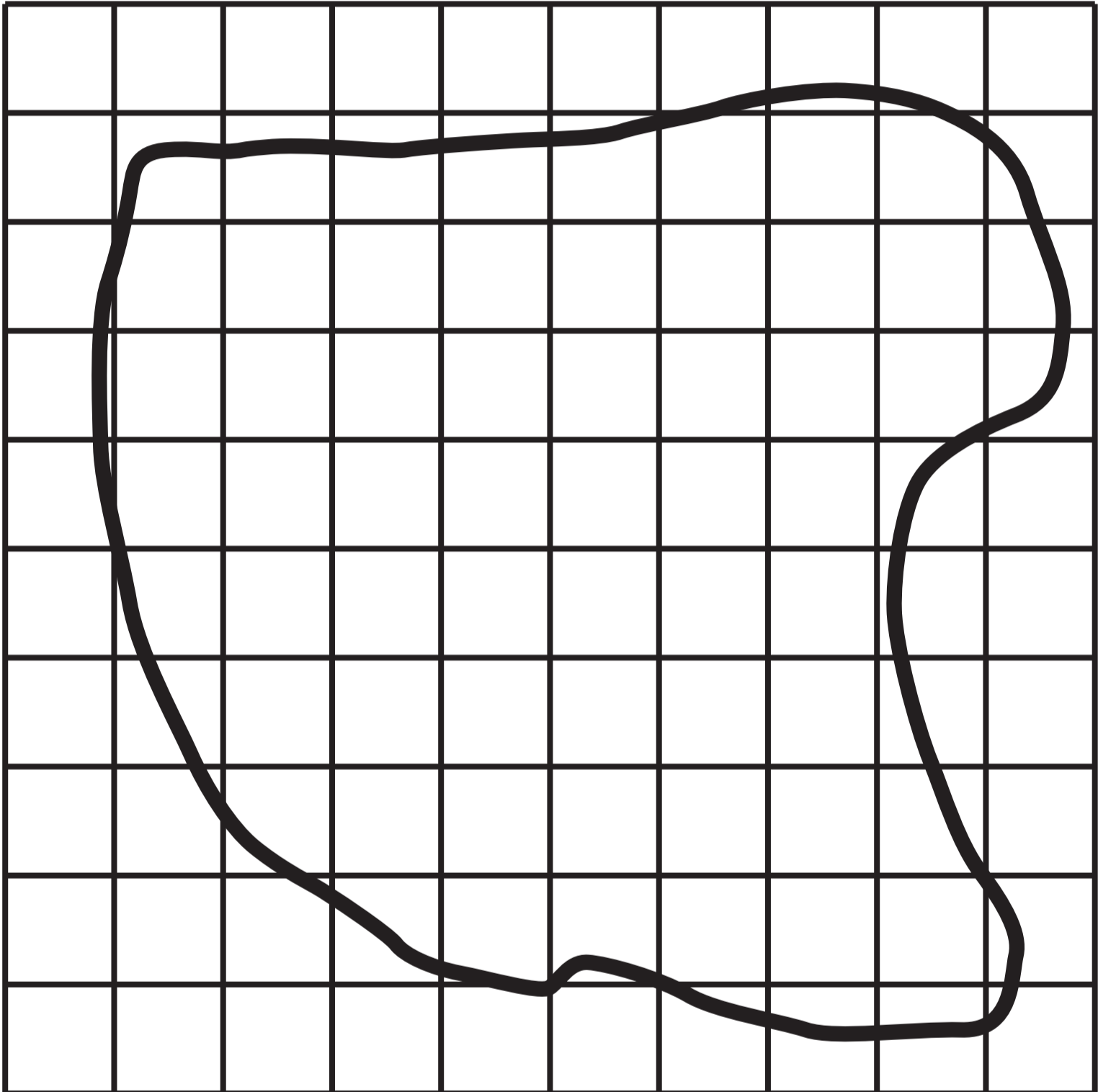
First name(s): _____

Centre Number: _____

Candidate Number: 0 _____

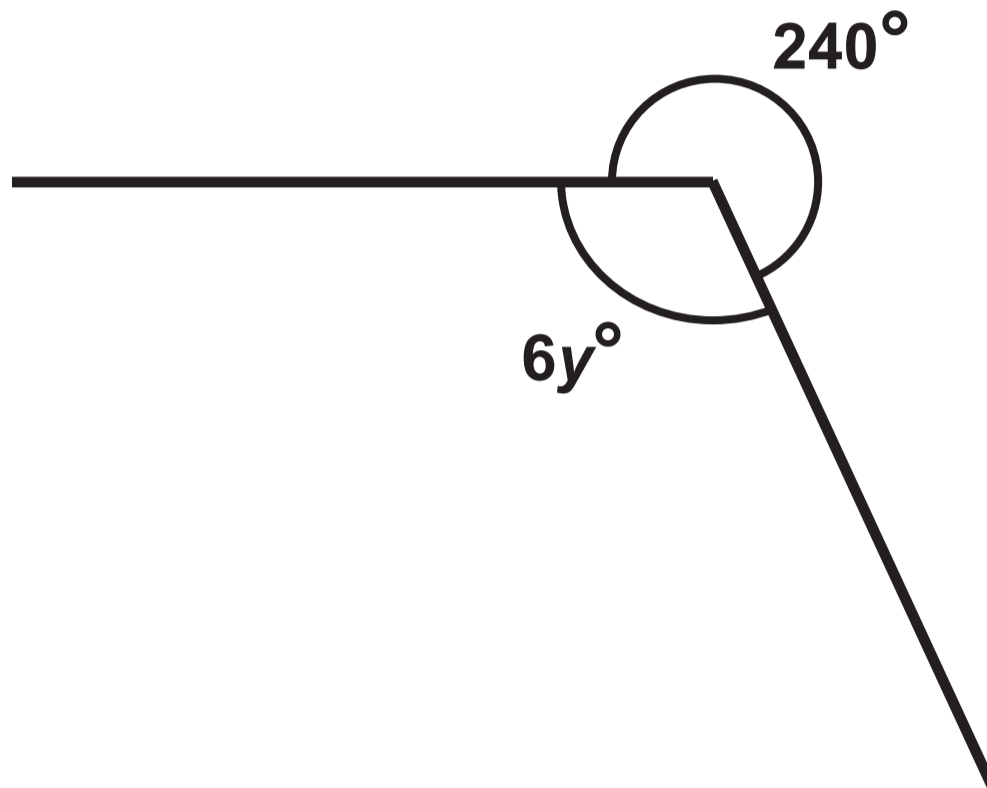
Question 3

Each square on the grid represents 1 cm^2



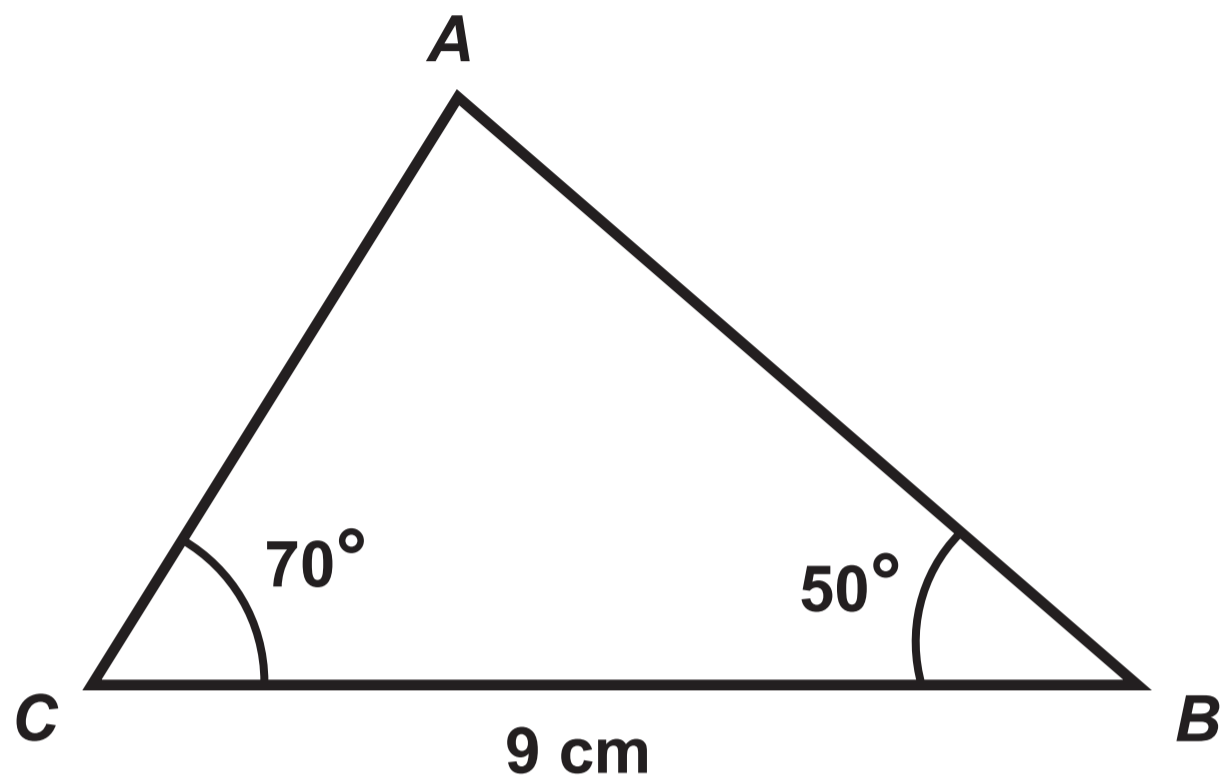
Question 8

Diagram NOT drawn to scale



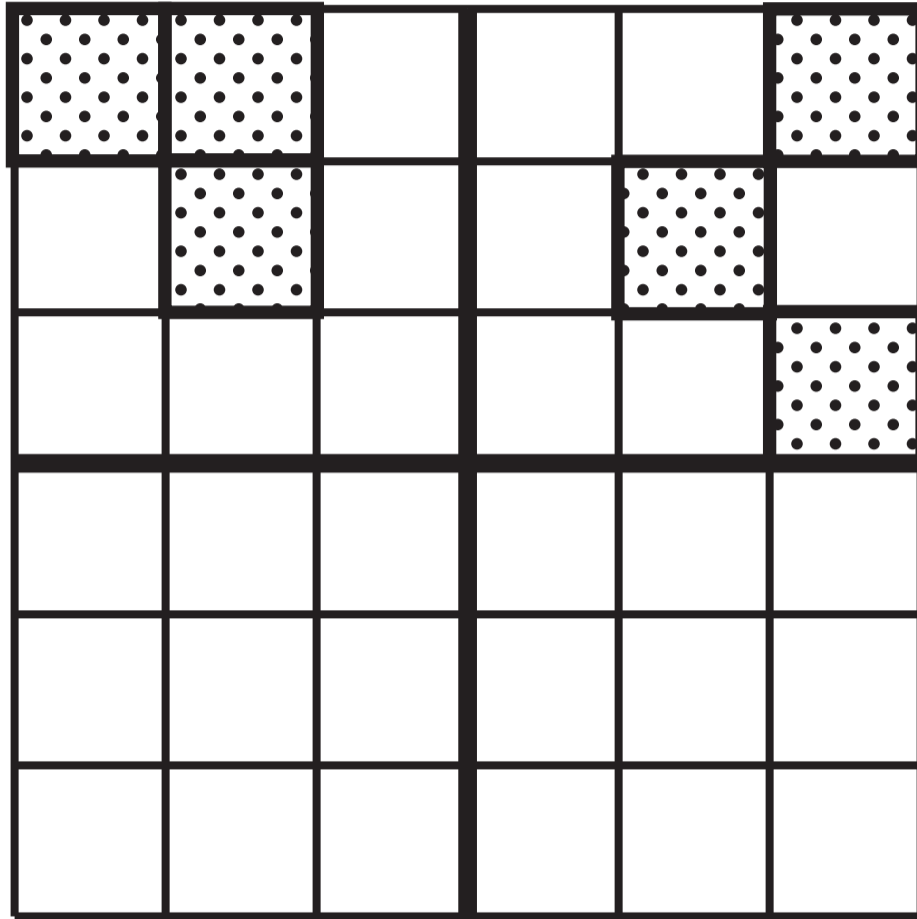
Question 11

Diagram NOT drawn to scale



In the space below, make an accurate drawing of triangle ABC shown above.

Question 13



Question 22

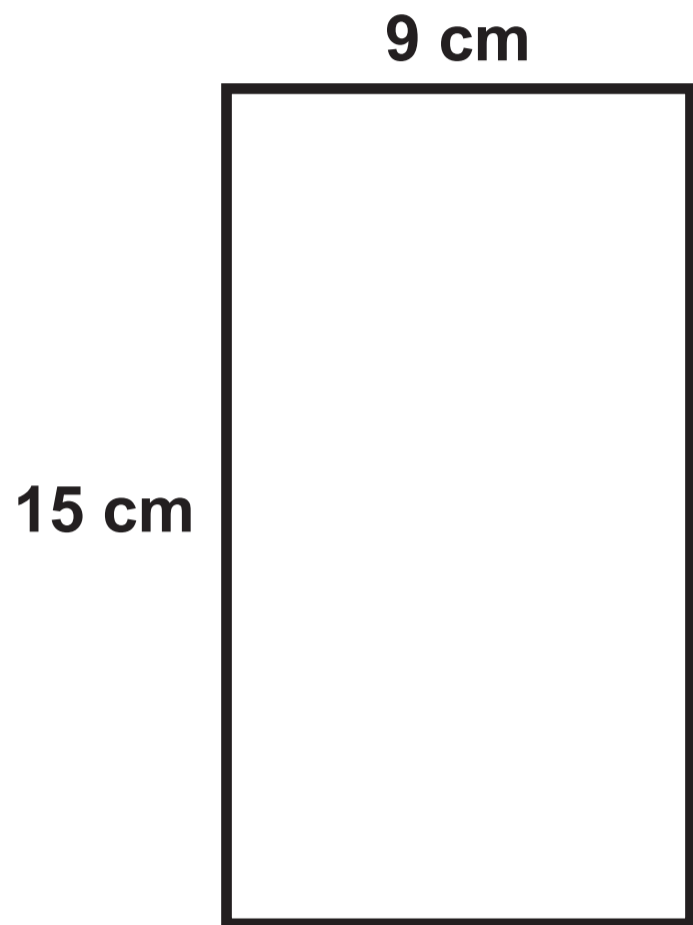
Table

Number shown on dice	Frequency
1	65
2	40
3	52
4	10
5	23
6	110

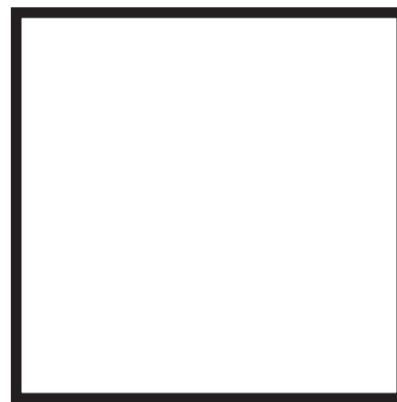
Question 23

Diagram NOT drawn to scale

Rectangle



Square



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and
NUMERACY**



**FORMULA LIST
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You must not write on these formula pages.

Anything you write on these formula pages will gain NO credit.

Formula List – Foundation Tier

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

