

Print copy of Braille text (UEB)

WJEC GCSE EDUQAS

C300U20-1

Mathematics – Component 2

Calculator-Allowed Mathematics

Foundation Tier

Wednesday 4 June 2025 – Morning

2 hours 15 minutes **plus your additional time allowance****ADDITIONAL MATERIALS**

You must have: Calculator, tactile ruler and protractor, pair of compasses and drawing equipment e.g. geometry board, rubber mat, mapping pins, rubber bands, drawing stylus and spur wheel.

ITEMS INCLUDED WITH QUESTION PAPER

- **A separate Formula List.**
- **A separate Diagram Booklet.**
- **Cut out shapes for Question 3 (a).**
- **Bumpons for Question 1 (c), Question 4 and Question 5 (b).**
- **Wikki Stix for Question 4 (b).**
- **Sticky labels for Question 5 (b).**

INSTRUCTIONS TO CANDIDATES

- **On your paper**, write your name, centre number and candidate number.
- Answer ALL **the** questions **on your paper**.
- Take π as 3.142 or use the π button on your calculator.

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.

You are reminded of the need for good English and orderly, clear presentation in your answers.

Answer ALL questions.

1. (a) Write twelve million three hundred thousand in figures.

Ans: ____ [1 mark]

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

2.45 2.07 2.6 2.174

Ans: smallest ____ ____ ____ ____ largest [1 mark]

(c) Look at the diagram for Question 1 (c) in the separate Diagram Booklet.

Shade $\frac{2}{7}$ of the regular shape shown.

A spare tactile diagram, bumpons and drawing film are available for this question. [1 mark]

(d) Choose the INCORRECT statement below.

P. $-12 < -9$

Q. $-9 < 12$

R. $-9 > -12$

T. $-9 < -12$

S. $12 > -9$

Ans: ____ [1 mark]

2. Look at the tables provided separately for Question 2

There are two tables: Table 1 and Table 2

Edugym offers exercise classes and sells drinks and supplements. The two tables show some of the costs.

Table 1

Exercise Class	Cost per class
Bodymax	£4.75
Circuits	£6.70
Kettlebells	£4.25
Spin	£5.50

Table 2

Drinks and supplements	Cost
Bottle of water	85p
Isotonic drink	£1.89
Energy gel	£2.29

(a) Last week Henry exercised at Edugym. He attended a circuits class and a spin class. He bought a bottle of water and an energy gel.

How much did Henry spend at Edugym last week?

Ans: ____ [1 mark]

(b) After an exercise class, Edugym received £13.23 from the sale of isotonic drinks.

How many isotonic drinks were sold?

Ans: ____ [2 marks]

(c) Edugym offer a pay monthly deal for exercise classes.

Pay monthly deal:

£40 per month for unlimited classes

Jade attends three circuits classes, four bodymax classes and two kettlebells classes a month.

Should Jade use the pay monthly deal?

Yes **OR** No

Ans: ____

Give the reason for your answer

Ans: ____ [2 marks]

3. (a) Look at the diagram for Question 3 (a) in the separate Diagram Booklet. The diagram shows 6 shapes: Shape A, Shape B, Shape C, Shape D, Shape E and Shape F, on a grid.

A set of cut out shapes are provided for this question.

Complete the following sentences about the shapes on the grid.

Ans: Shape ____ has exactly one line of symmetry.

Ans: Shape ____ has rotational symmetry of order two.

Ans: Shapes ____ and ____ are congruent.

[3 marks]

(b) (i) Look at the diagram for Question 3 (b) (i) in the separate Diagram Booklet. The diagram is NOT drawn to scale.

The diagram shows a right angled triangle labelled ABC.

In the diagram:

Angle ABC = x°

Angle BAC = x°

Angle ACB is a right angle.

Calculate the value of x.

Ans: $x =$ ____ [2 marks]

(ii) Look at the diagram for Question 3 (b) (ii) in the separate Diagram Booklet. The diagram is NOT drawn to scale. The diagram shows four angles. Two of the angles are labelled. One of these angles is 132° and the other angle is $6y^\circ$.

Calculate the value of y .

Ans: $y = \underline{\hspace{2cm}}$ [1 mark]

4. Look at the diagram for Question 4 in the separate Diagram Booklet. The diagram is a grid showing a map of a park.

(a) Write down the coordinates of the playground.

Ans: ($\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$) [1 mark]

(b) There is a climbing wall at the midpoint between the bus stop and the information centre.

Mark with a **bump**on the position of the climbing wall on the map.

A spare tactile diagram, Wikki Stix and bumpsons are provided for this question. [1 mark]

(c) The scale on the map is:

Each side of a square represents 45 metres

Caelan walks directly from the picnic area to the toilets in a straight line. He walks back to the picnic area along the same straight line.

How far did Caelan walk altogether?

Give your answer in metres.

Ans: Distance = $\underline{\hspace{2cm}}$ metres [2 marks]

5. (a) Look at the diagram for Question 5 (a) in the separate Diagram Booklet. The diagram is a pie chart.

Each student in a group was asked to choose their favourite pet.

The pie chart shows the results. The pets chosen were cat, dog, hamster and rabbit.

What fraction of the students chose hamster?

Give your answer in its simplest form.

Ans: $\underline{\hspace{2cm}}$ [2 marks]

(b) Look at the diagram for Question 5 (b) in the separate Diagram Booklet. The diagram shows a probability scale.

One student is chosen at random from the group.

D is the probability that the student's favourite pet is a dog

C is the probability that the student's favourite pet is a cat

R is the probability that the student's favourite pet is a rabbit.

Mark D, C and R on the probability scale.

A spare tactile diagram, bumpons and sticky labels are provided for this question. [3 marks]

6. A rectangle has an area of 42 cm^2 and a perimeter of 34 cm.

Calculate the length and width of the rectangle.

Ans: Length = ____ cm

Ans: Width = ____ cm

[2 marks]

7. Rita writes down two numbers.

Her numbers satisfy the following conditions.

- Both numbers are greater than 12
- Both numbers are prime numbers.
- The sum of the two numbers is 40

Which two numbers does Rita write down?

Ans: The numbers that Rita writes down are ____ and ____ [2 marks]

8. Look at the table below for Question 8

The table shows some stationery items and their costs.

Key:

P = Pencil

PR = Protractor

PS = Pencil Sharpener

Stationery items	Total cost
P PR PR PR	£4.39
P P P P P	£3.20
PR PR PS PS PS	£5.38

Assume that:

- each pencil costs the same amount
- each protractor costs the same amount
- each pencil sharpener costs the same amount.

Complete the table below to show the cost of each item.

Stationery item	Cost
Pencil	(i)
Protractor	(ii)
Pencil Sharpener	(iii)

Ans: (i) ____ (ii) ____ (iii) ____ [5 marks]

9. Dimitri, Greta and their friends play air hockey matches throughout the summer.

Each player calculates their points total using the formula given below.

Points total = $3 \times \text{number of wins} + 2.5 \times \text{number of draws} - \text{number of losses}$

(a) So far this summer, Dimitri has 7 wins, 8 draws and 9 losses.

What is his points total for the matches he has played?

Ans: ____ [2 marks]

(b) So far this summer, Greta has a points total of 48
She has won 6 matches and had no losses.

How many matches has she drawn?

Ans: ____ [3 marks]

10. The temperature in Nuuk, Greenland was recorded at midday for each of the days Monday to Saturday.

The temperatures, in $^{\circ}\text{C}$, are listed below.

−9 −8 −4 −5 −1 −8

(a) What is the mode of these temperatures?

Ans: ____ [1 mark]

(b) What is the median of these temperatures?

Ans: ____ [2 marks]

The temperatures, in $^{\circ}\text{C}$, are repeated below.

−9 −8 −4 −5 −1 −8

(c) The temperature at midday on Sunday was recorded.

The mean midday temperature for the 7 days was -6°C

What was the temperature at midday on Sunday?

Ans: The temperature at midday on Sunday was ____ $^{\circ}\text{C}$ [2 marks]

11. (a) Write down the next two terms in the sequence.

−15, −12, −9, −6, (i), (ii)

Ans: (i) ____ (ii) ____ [2 marks]

(b) Simplify $16y - 3(2y + 7)$

Ans: ____ [2 marks]

(c) Factorise $12w - 9$

Ans: ____ [1 mark]

(d) Solve $5x + 3 = 14$

Ans: ____ [2 marks]

(e) Layla is trying to solve the equation $\sqrt[3]{y} = 5$
She uses the method shown below.

$$\sqrt[3]{y} = 5$$

$$y = 5 \times 3$$

So, $y = 15$

Explain why Layla's method is incorrect.

Ans: ____ [1 mark]

12. (a) Calculate 37% of 650

Ans: ____ [2 marks]

(b) A piece of elastic is 477 mm long.

It can be stretched by $\frac{2}{9}$ of its length before it snaps.

What is the length of the elastic when it snaps?

Ans: The length of the elastic when it snaps is ____ mm. [3 marks]

(c) Write 54 as a percentage of 171

Give your answer correct to 1 decimal place.

Ans: ____ [3 marks]

13. Look at the recipe below for Question 13

The recipe is used to make a small pumpkin pie.

Small pumpkin pie (serves 8)

340 g shortcrust pastry

450 g pumpkin

2 large eggs

75 g brown sugar

275 ml .. double cream

$\frac{1}{2}$ tsp cinnamon

(a) The recipe can be changed to make a large pumpkin pie to serve 12 people.

Peter makes a large pumpkin pie.

How many grams of pumpkin does Peter need?

Ans: ____ [2 marks]

Small pumpkin pie (serves 8)

340 g shortcrust pastry

450 g pumpkin

2 large eggs

75 g brown sugar

275 ml .. double cream

$\frac{1}{2}$ tsp cinnamon

(b) Grace made a number of SMALL pumpkin pies for a Halloween party. She used a total of 1.65 litres of double cream to make her pies.

How many small pumpkin pies did Grace make?

Ans: ____ [3 marks]

14. Igor invests £2500 in a savings account.
The account pays 5.4% simple interest per year.
The interest is added to the account at the end of each year.

After how many years will the amount of money in the savings account be greater than £3500?

You must show all your working.

Ans: ____ [5 marks]

15. Ahmed buys 1.4 kg of Brazil nuts and 0.8 kg of cashew nuts.
He pays a total of £21.84
The cost of 1 kg of Brazil nuts is £9.60

What is the cost of 1 kg of cashew nuts?

Ans: The cost of 1 kg of cashew nuts is ____ [4 marks]

16. Look at the diagram for Question 16 in the separate Diagram Booklet.
The diagram is NOT drawn to scale.

PQRS is a parallelogram.
U is a point on the line PS.
T is a point on the line PR.

In the diagram:

Angle PTU = 53°

Angle QPR = 48°

Angle TUS = 112°

Angle USR = x

Show that $x = 73^\circ$

Give a reason for each step of your answer.

Ans: ____ [4 marks]

17. Use the information below to answer the following questions.

1 mile = 1.6 kilometres (km)

1 gallon = 4.5 litres

(a) Heidi is travelling to Exeter on the M5 motorway.

Motorway signs display the distances in MILES.

This information is displayed on a sign on the M5 motorway.

M5 The South West

Weston-s-Mare ... 10

Taunton 32

Exeter 64

Heidi passes the sign shown at 5:35 p.m.

She intends to travel at an average speed of 80 km/h for the remainder of her journey to Exeter.

Remember: 1 mile = 1.6 kilometres (km).

At what time does Heidi expect to arrive in Exeter?

Give your answer to the nearest minute.

You must show all your working.

Ans: Heidi expects to arrive in Exeter at ____ [5 marks]

(b) At the start of the journey, Heidi stopped at a garage to fill her fuel tank with diesel.

The cost of diesel was £1.52 per litre.

Heidi spent £102.60 on diesel.

Remember: 1 gallon = 4.5 litres.

How many GALLONS of diesel did Heidi buy?

Ans: Heidi buys ____ gallons of diesel [3 marks]

18. Look at the diagram for Question 18 in the separate Diagram Booklet. The diagram is a scatter diagram.

When selling an apartment, the selling price can be calculated using the price per square metre of floor area.

The scatter diagram shows the price per square metre of 12 apartments and their distance from Educastle city centre.

It also shows the line of best fit for the data.

(a) Describe the relationship between the price per square metre of an apartment and its distance from Educastle city centre.

Ans: ____ [1 mark]

(b) Use the line of best fit to estimate the price per square metre of an apartment that is 4 miles from Educastle city centre.

Ans: ____ [1 mark]

(c) Ellie says,

“All apartments 7.5 miles from Educastle city centre cost £4000 per square metre.”

Is Ellie’s statement correct?

Yes OR No

Ans: ____

Give the reason for your answer

Ans: ____ [1 mark]

(d) Look at the table below for Question 18 (d).

The table shows information about the house prices of 35 houses on a street outside Educastle city centre.

Price, p , thousand pounds	Frequency
$100 < p \leq 150$	8
$150 < p \leq 200$	12
$200 < p \leq 250$	9
$250 < p \leq 300$	5
$300 < p \leq 350$	1

Calculate an estimate for the mean house price on the street.

Ans: ____ [4 marks]

19. Greg has been saving 10p and 20p coins in a money jar.

The ratio of the number of 10p coins to the number of 20p coins in Greg's money jar is 2:7

Greg gives all the 20p coins to his children, Rona and Jamie, in the ratio 3:4

The 20p coins that Rona was given have a total value of £3.60

What was the total value of the coins in Greg's money jar?

You must show all your working.

Ans: The total value of the coins in Greg's money jar was ____ [6 marks]

20. Look at the diagram for Question 20 in the separate Diagram Booklet. The diagram is NOT drawn to scale.

The diagram shows a square inside a circle.

Each corner of the square lies on the circumference of the circle.

The length of each side of the square is 13 cm.

Calculate the area of the circle.

Give your answer correct to 1 decimal place.

You must show all your working.

Ans: Area of the circle = ____ cm² [5 marks]

21. (a) Look at the diagram for Question 21 (a) in the separate Diagram Booklet. The diagram shows five straight-line graphs: Graph A, Graph B, Graph C, Graph D and Graph E.

Their equations are shown in the table below.

Complete the table to match each graph to its equation.
One has been completed for you.

Equation	Graph
$y = 2x + 1$	(i)
$y = x$	Graph A
$y = -x - 1$	(ii)
$y = 2x$	(iii)
$y = -2x + 1$	(iv)

Ans: (i) ____ (ii) ____ (iii) ____ (iv) ____ [2 marks]

(b) **Choose** the equation of the straight line that is parallel to $y = 3x + 5$

P. $3y = x + 5$

Q. $y = -3x$

R. $2y = 6x + 80$

S. $y = \frac{1}{3}x + 5$

T. $y + 3x = 7$

Ans: ____ [1 mark]

(c) Make y the subject of the following formula.

$$\frac{y}{t} + u = x$$

Ans: ____ [2 marks]

22. Yasmin has two bags, Bag A and Bag B.
Each bag contains some red counters and some blue counters.

Bag A contains 2 red counters and 3 blue counters.
In Bag B the number of red counters is three times the number of blue counters.

Yasmin randomly chooses one counter from Bag A and then one counter from Bag B.

(a) Look at the diagram for Question 22 (a) in the separate Diagram Booklet. The diagram shows an incomplete probability tree diagram.

Complete the probability tree diagram.

Ans: (i) ____ (ii) ____ (iii) ____ (iv) ____ (v) ____ (vi) ____ [3 marks]

(b) Calculate the probability that Yasmin chooses at least one blue counter.

Ans: ____ [3 marks]

23. (a) Look at the diagram for Question 23 (a) in the separate Diagram Booklet. The diagram is NOT drawn to scale.
The diagram shows triangle ABC.

In the diagram:

AC = 15 cm

Angle BAC = 38°

Angle ABC is a right angle.

Calculate the length of AB.

Ans: ____ [3 marks]

(b) Look at the diagram for Question 23 (b) in the separate Diagram Booklet. The diagram is NOT drawn to scale.
The diagram shows triangle DFE.

In the diagram:

$$DF = 19 \text{ cm}$$

$$FE = 17 \text{ cm}$$

Angle DFE is a right angle.

Calculate the size of angle DEF.

Ans: ____ [3 marks]

TOTAL 120 MARKS

END OF PAPER

Question 2 – Table 1 and Table 2

Table 1

Exercise Class	Cost per class
Bodymax	£4.75
Circuits	£6.70
Kettlebells	£4.25
Spin	£5.50

Table 2

Drinks and supplements	Cost
Bottle of water	85p
Isotonic drink	£1.89
Energy gel	£2.29