Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

0969847269

MATHEMATICS **0096/02**

Paper 2 **October 2023**

45 minutes

You must answer on the question paper.

You will need: Compasses
Protractor
Tracing paper (optional)

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You should show all your working in the booklet.
- You may use a calculator.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **16** pages.

1 Write 2.3 hours in minutes.

..... minutes [1]

2 Write a number in each box to make the statement correct.

$\square \div \square$ is $\frac{2}{5}$

[1]

3 Write the name of a regular polygon with rotational symmetry of order 3

..... [1]

4 Ahmed translates a shape on a square grid.

Tick (✓) **all** the statements that are always true.

The new shape is the same size as the original shape.	
The new shape is a rotation of the original shape.	
The new shape is the same shape as the original shape.	
The new shape covers part of the original shape.	

[1]

5 Draw a circle with a radius of 4 cm and the centre at O.
Use a ruler and compasses.

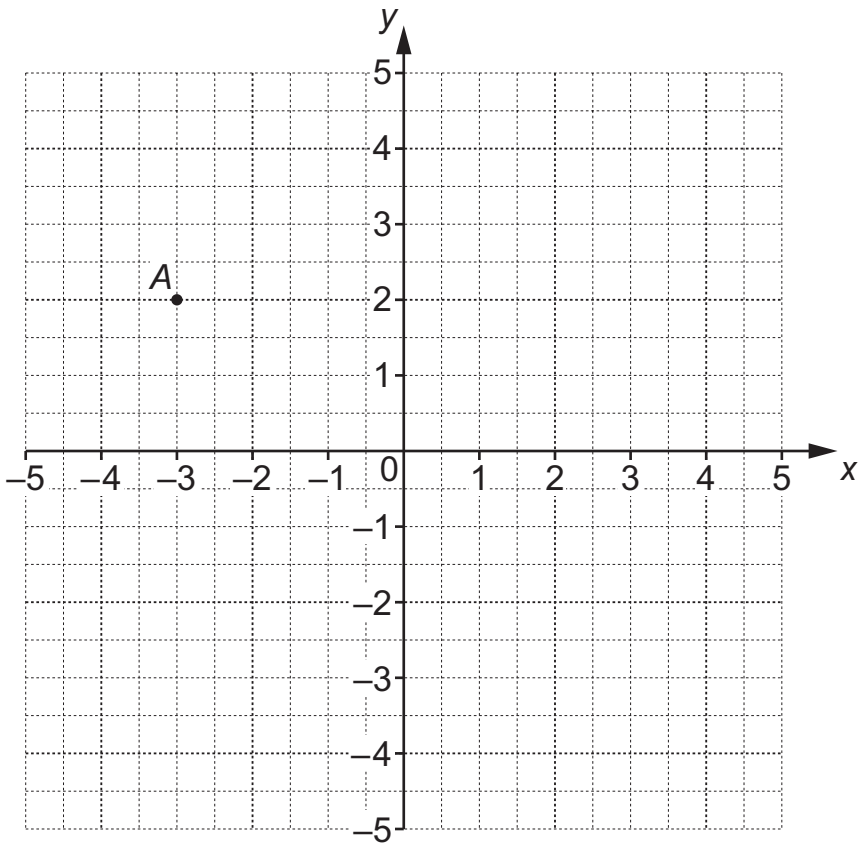
[1]

6 Complete the table of equivalent values.

Fraction	Decimal	Percentage
$1\frac{1}{5}$		
		30%
	0.54	

[2]

7 Point *A* is plotted on the coordinate grid.



(a) Write the coordinates of point *A*.

(..... , ...) [1]

(b) Plot the point with coordinates $\left(\frac{3}{2}, -4\right)$

[1]

8 **(a)** Write a common multiple of 12 and 18

..... [1]

(b) Write a common factor of 12 and 18

..... [1]

9 Oliver predicts that girls have longer names than boys.
He designs four questions to investigate his prediction.

Tick (✓) the question that is the **least** helpful for his investigation.

What is your name?	
How many letters are in your name?	
Is your name long or short?	
How do you spell your name?	

[1]

10 Calculate.

$$\frac{2}{3} + \frac{1}{4}$$

..... [1]

11 Tick (✓) all the shapes that **could** have an obtuse angle.

scalene triangle	
rectangle	
parallelogram	
pentagon	

[1]

12 Complete the statement using the correct word.

In the number 7.419 the 9 represents 9 [ ]

[1]

13 Here is part of a sequence.

23, 17, 11, …

The sequence continues in the same way.

Draw a ring around **all** the numbers that are in the sequence.

7 −2 −7 –35 –49

[1]

14 Draw a line to match each number to the correct description.

136 tenths	
1064 hundredths	Greater than 13.56
125 tenths and 42 hundredths	
1 ten and 75 tenths	Less than 13.56
1 ten, 40 tenths and 36 hundredths	

[2]

15 A clock needs one battery to work.
The battery lasts 6 weeks.

(a) Calculate the number of batteries that are needed for the clock to work for 1 year.

..... [1]

(b) A box contains 30 batteries.
These are used in the clock.

Write the number of whole weeks that the clock will work.

..... weeks [1]

16 Here is a Carroll diagram that describes some properties of shapes.

	Has parallel sides	Does **not** have parallel sides
Diagonals are the same length		
Diagonals are **not** the same length		

Draw a ring around the quadrilateral that belongs in the shaded part of the diagram.

rhombus trapezium parallelogram kite square

[1]

17 Here are the first three terms of a sequence.
Each term is made from the sum of a pair of square numbers.

The sequence continues in the same way.

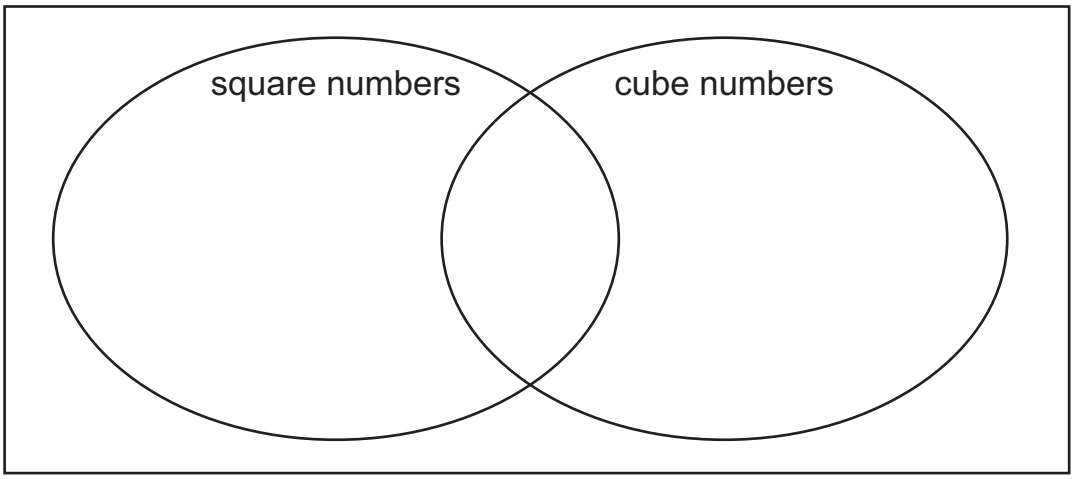
Write the 6th number in the sequence.

..... [1]

18 Here are some numbers.

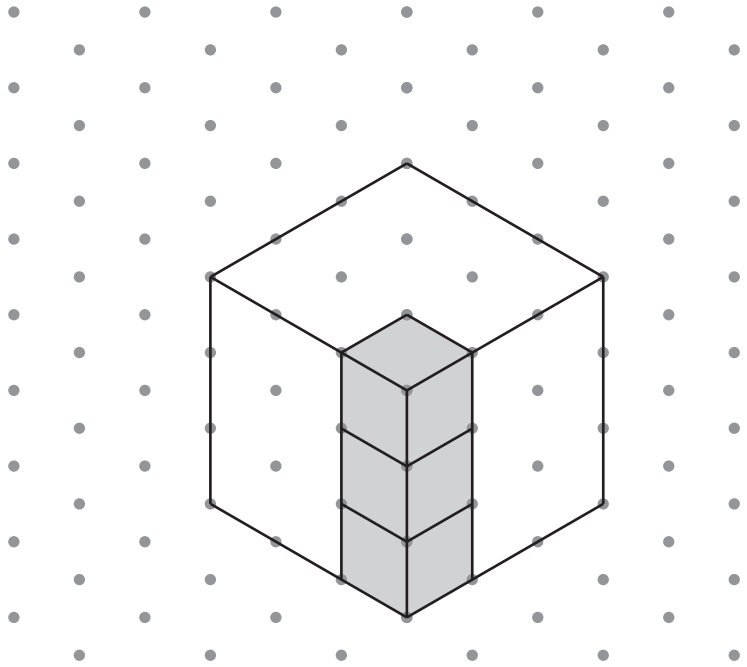
1 5 8 16 25 64

Write **each of** these numbers in the correct place on the Venn diagram.



[2]

19 Here is a drawing of a large cube on isometric paper.
The large cube is made of 27 smaller cubes.



The three shaded cubes are removed.

Draw the new shape.

[1]

20 Eva collects data about the mass, in kilograms, of 30 different school bags.
She wants to use the best representation to show her data.

Explain why Eva should **not** use a bar chart.

.....

..... [1]

21 Here are some numbers.

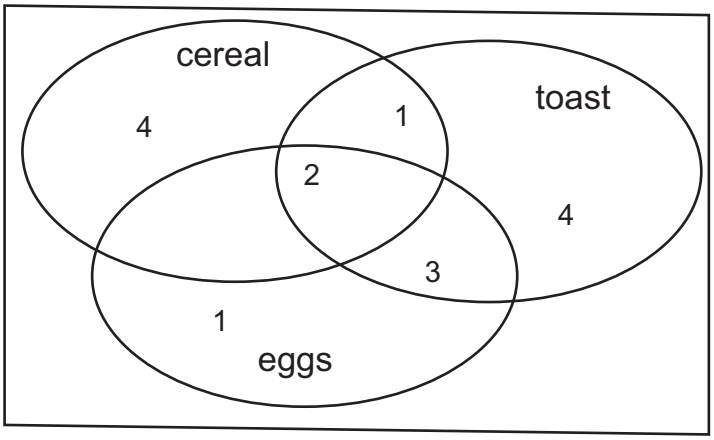
4.4 4.31 3.45 4.53 5.2

Rajiv arranges the numbers in order of size, starting with the smallest.

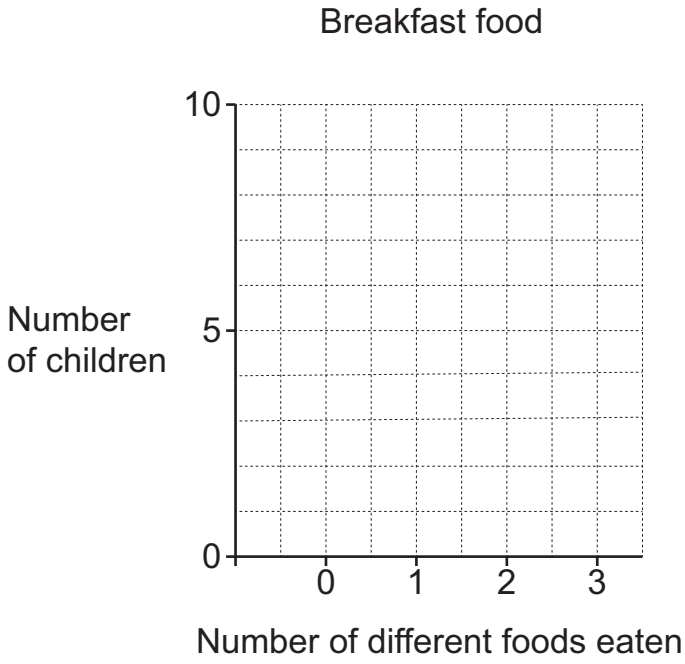
Write the 3rd number in his list.

..... [1]

22 Jamila asks a group of children what food they eat for breakfast.
The Venn diagram shows the number of children and what they eat for breakfast.



Show this information on the dot plot.



[2]

23 Samira grows some sunflowers.
She buys four types of sunflower seed and labels them A, B, C and D.
She uses this table to record the number of each type of seed that grows.

	Type A	**Type B**	**Type C**	**Type D**
Number of seeds planted	20	50	40	10
Number of seeds that grow	15	35	25	5

Next year she wants to buy the type of seed that is most likely to grow.

Write the type of seed that is **most likely** to grow.

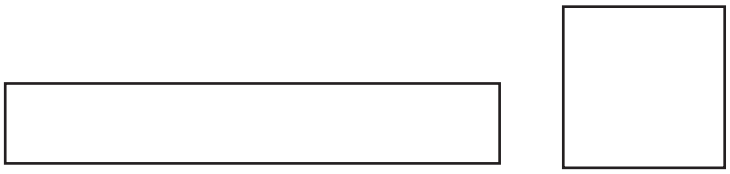
..... [1]

24 Write a number in the box to complete the statement.

$$\frac{3}{\square} \div 2 = \frac{3}{2}$$

[1]

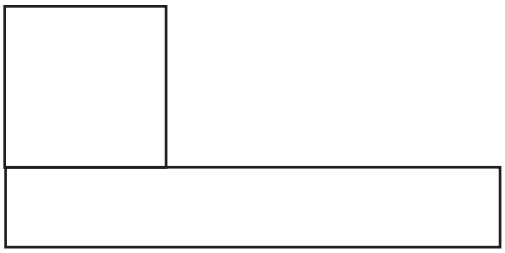
25 Here is a drawing of a rectangle and a square.



Not drawn to scale

The lengths and widths of both shapes are measured in centimetres.
All the measurements are **even** numbers.
The length and width of the rectangle are different even numbers.

The two shapes are used to make this compound shape.



Not drawn to scale

The area of the compound shape is 32 cm^2.

Find a possible length and possible width of the rectangle.

length ..... cm

width ..... cm

[2]

26 Hassan has 2.4 metres of string.
He cuts a piece off the string and gives this to Mike.

Mike cuts his piece of string into two equal pieces.
Each of these two pieces is 30 centimetres long.

Complete the sentence.

Hassan gives ..... % of his string to Mike.

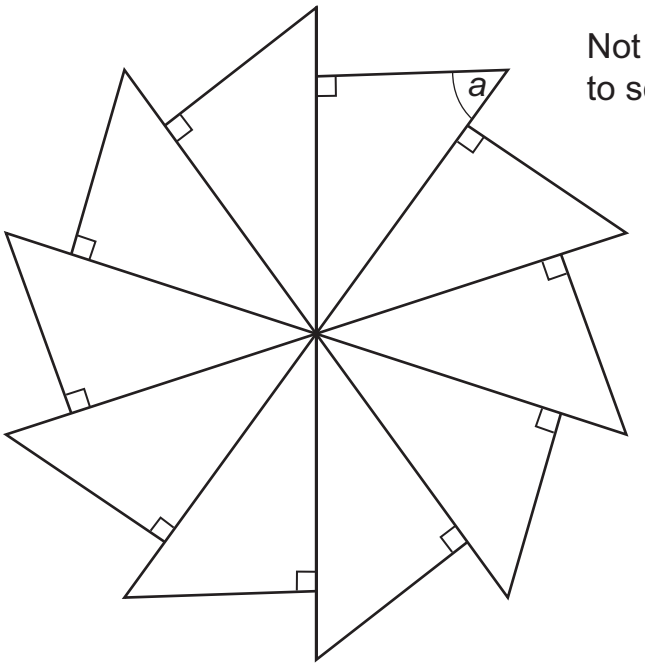
[2]

27 Naomi and Angelique each think of a number with exactly 1 decimal place.
Both numbers round to the same whole number.

Write the largest possible **difference** between the two numbers.

..... [1]

28 Ten identical right-angled triangles are arranged to make a new shape.



Not drawn to scale

Find the value of the angle marked *a*.
Show your working.

..... ° [2]

29 The mean height of a group of five children is 120 centimetres.
The modal height of the same group of children is 125 centimetres.

Three new children join the group.

The mean height of the eight children is 125 centimetres.
The modal height of the eight children is 120 centimetres.

Here are two pairs of statements about the three new children who joined the group.
Tick (✓) the correct statement in **each** pair.

Exactly one of the three new children must be 120 centimetres tall	
Exactly two of the three new children must be 120 centimetres tall	

The three new children have a total height of 300 centimetres	
The three new children have a total height of 400 centimetres	

[2]