Cambridge Assessment International Education

Mathematics

Stage 5

Paper 1   **2023**

Cambridge Primary Progression Test

Name

Class

Date

45 minutes

Additional materials: Set square
   Tracing paper (optional)
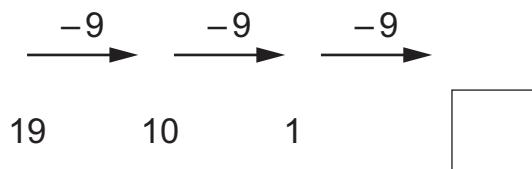
INSTRUCTIONS
- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.
- You are **not** allowed to use a calculator.

INFORMATION
- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].
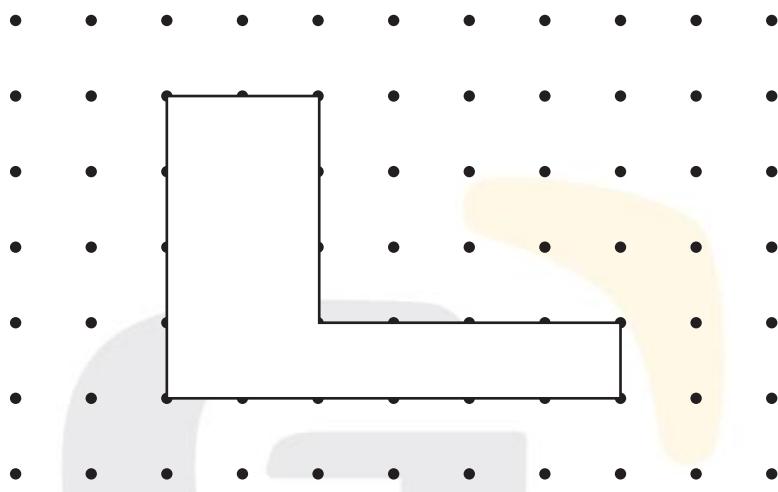
1 Here is part of a sequence.
The sequence continues in the same way.

$$\xrightarrow{-9}\qquad\xrightarrow{-9}\qquad\xrightarrow{-9}$$

19   10   1   ☐

Write the next number in the sequence in the box. [1]

2 Here is a compound shape drawn on a 1 cm square dotted grid.

(a) Calculate the perimeter of the shape.

.... cm [1]

(b) Calculate the area of the shape.

.... cm^2 [1]

3 Anastasia records the time it takes to run around the park each day.
She writes each time to the nearest minute.

$$32 \quad 31 \quad 28 \quad 25 \quad 30 \quad 31 \quad 29$$

Write her median time.

.... minutes [1]

4 Draw a line from each equation to show if it is true or false.
One has been done for you.

325 ÷ 10 = 3.25

2690 × 100 = 26 900

101 × 10 = 1010

503 700 ÷ 1000 = 50.37

4560 ÷ 100 = 45.6

True
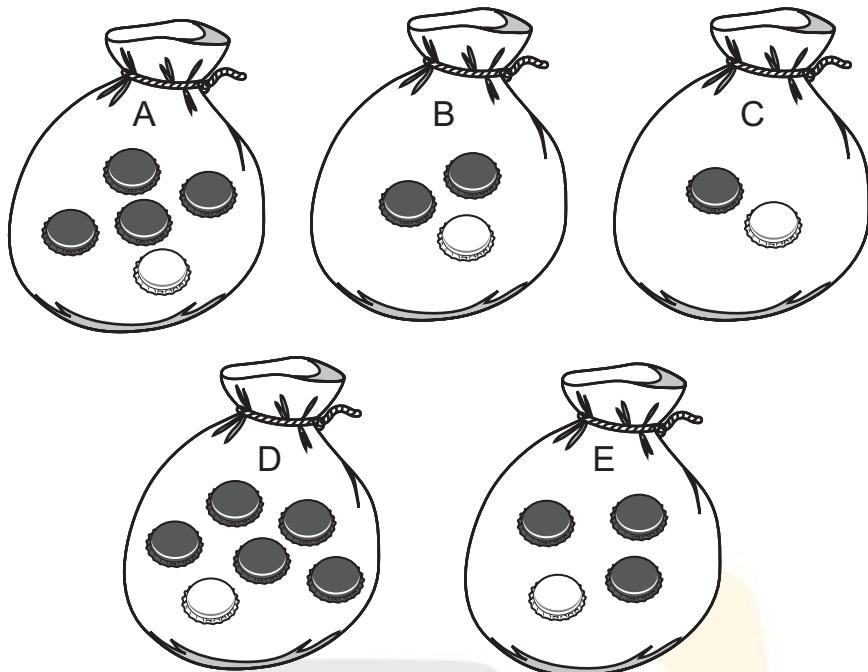
False

[2]

5 Calculate 94 divided by 7
Give the remainder as a fraction.

.... [1]

6 Here are five bags.
Each bag contains bottle tops that are either black or white.
The bottle tops are all the same size.
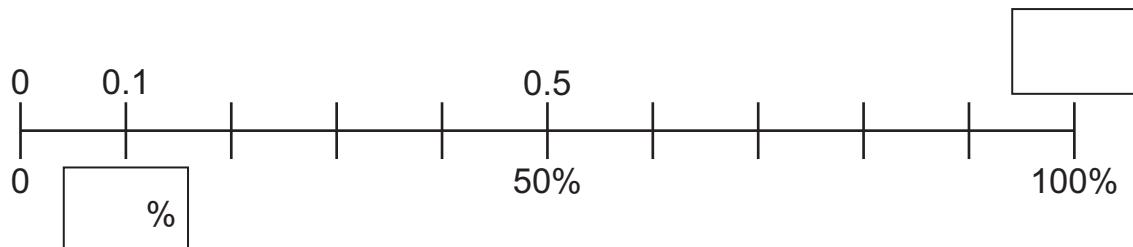
Mia takes a bottle top at random from one of the bags.

Write the letter of the bag that gives her the greatest likelihood of choosing a white bottle top.

.... [1]
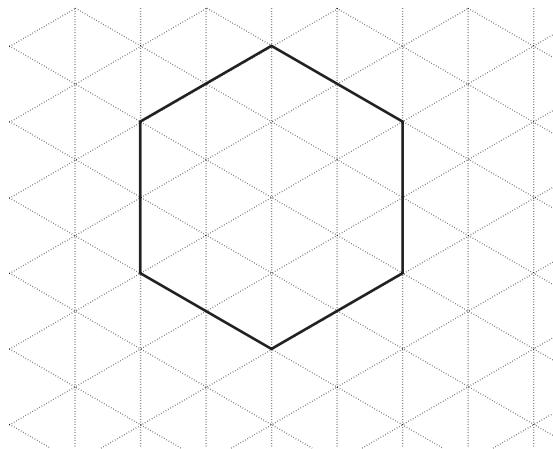
7 Here is a number line showing decimals and their equivalent percentages.

Write the correct number in each box.

[1]

8 Draw **three** lines to complete this sketch of a cube.

[1]

9 Here are two pairs of calculations.

Draw a ring around the correct calculation in each pair.

6 + 5 × 2 = 22	6 + 5 × 2 = 16

10 + 10 ÷ 2 = 15	10 + 10 ÷ 2 = 10

[1]

10 Oliver draws some angles on a Carroll diagram.

Complete both labels on the diagram to describe the angles.
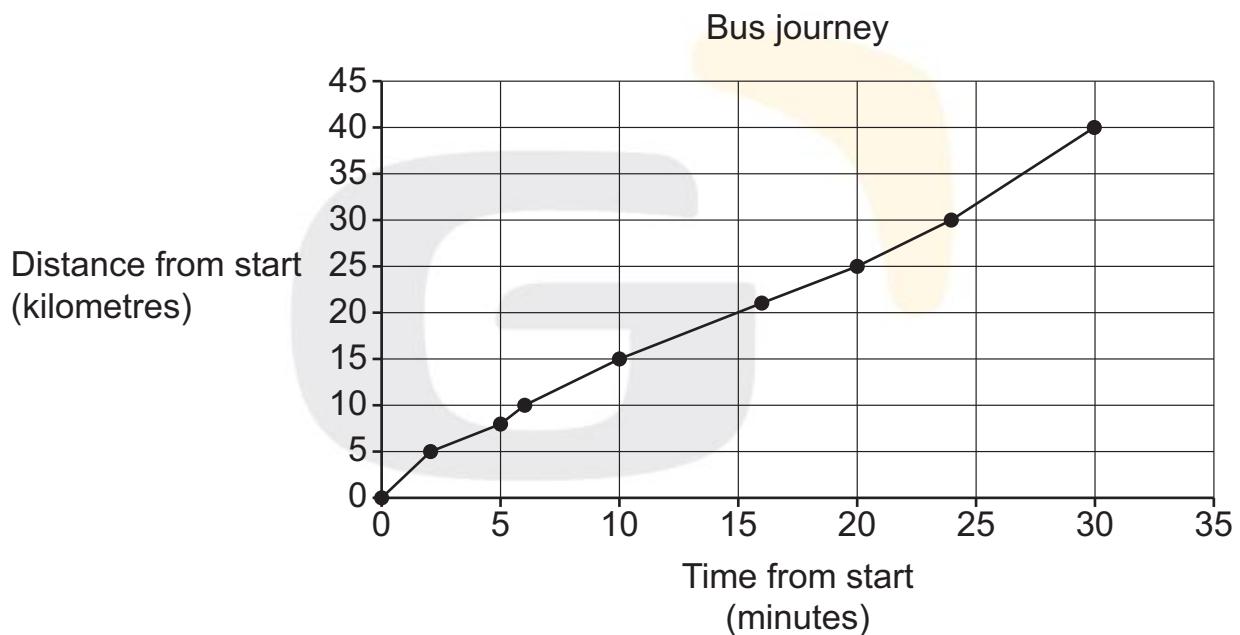
[1]

11 Calculate.

46.7 + 24.5

.... [1]

12 The graph shows information about a bus journey.

Bus journey

Distance from start (kilometres)

Time from start (minutes)

(a) Write the distance the bus travels in the first 20 minutes.

.... km [1]

(b) Write the total time of the bus journey.
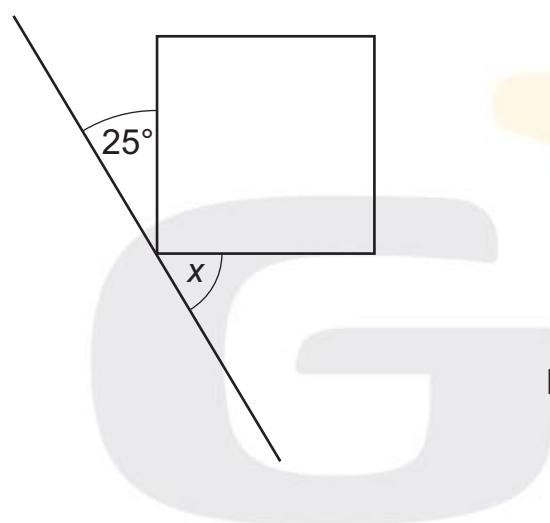
.... minutes [1]

13 Write a multiple of 3 that is also a factor of 30

.... [1]

14 Here is a diagram with a square and a straight line.
The square touches the straight line.

Calculate the size of angle *x*.

Not drawn to scale

....° [1]

15 Ahmed wants to start a fruit stall at school.
He designs a survey to find out what type of fruit to sell on his stall.

Tick (✓) the question that is **most** useful to Ahmed.

What type of fruit do you like? ☐

What type of fruit would you buy? ☐

How many pieces of fruit do you eat each day? ☐

What is your favourite colour of fruit? ☐

Will you eat your fruit at break or lunchtime? ☐

[1]

16 Naomi is thinking of a fraction.
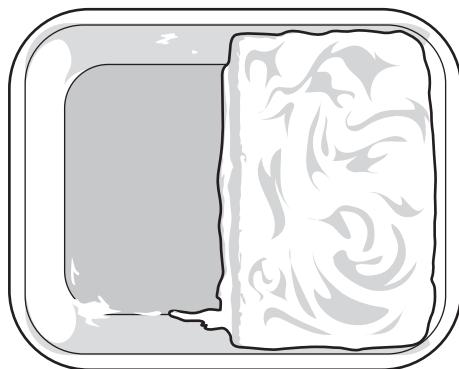
My fraction is equivalent to $\frac{3}{4}$
The denominator is less than 20
The numerator is an odd number.

Write the fraction that Naomi is thinking of.

.... [1]

17 Chen has half a tub of ice cream.
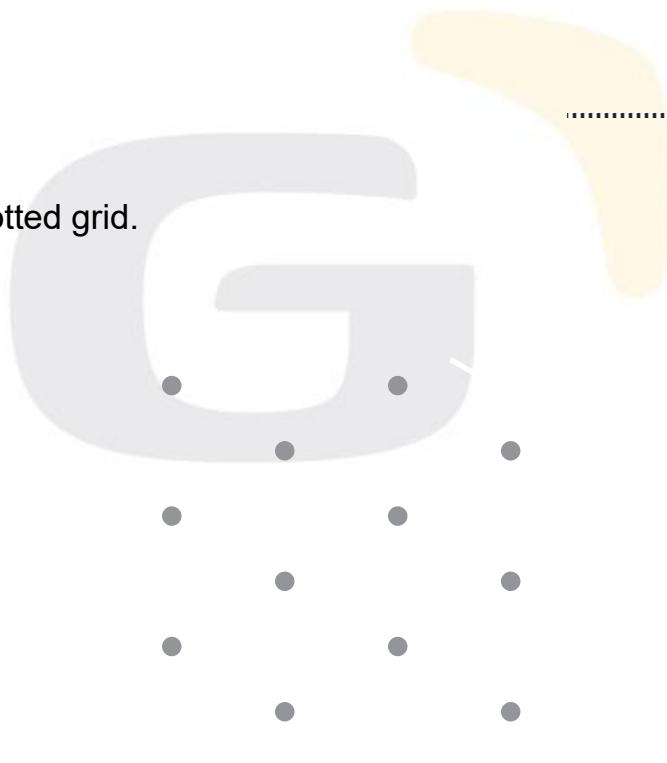
He shares the ice cream equally into four bowls.

Write the fraction of the whole tub that is in each bowl.

.... [1]

18 Here is a 1 cm dotted grid.
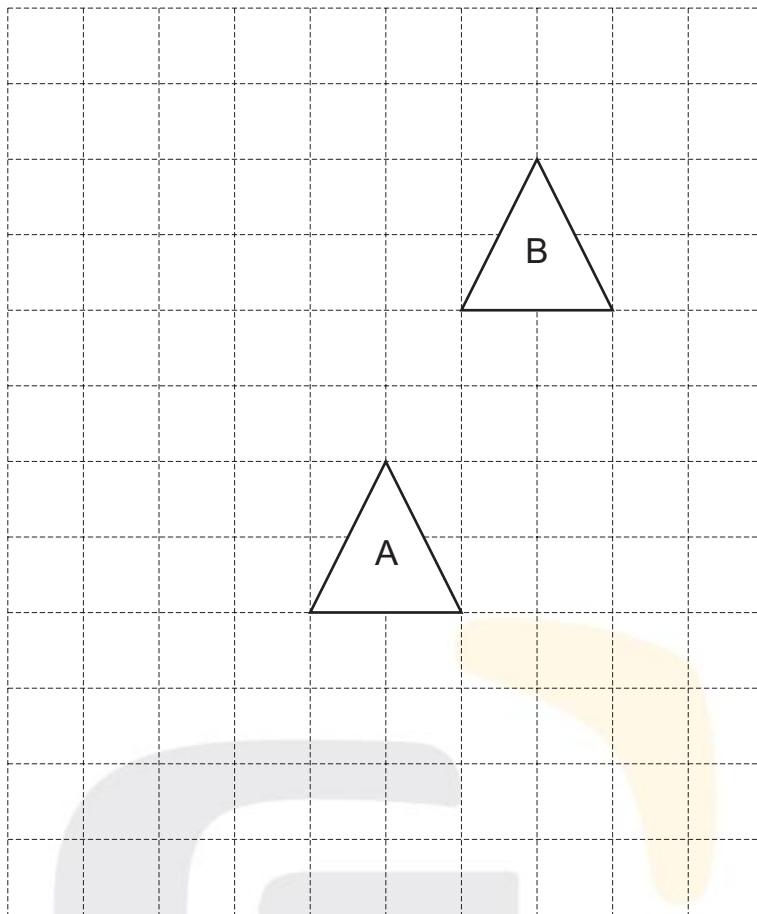
Join dots to make a triangle with only **one** line of symmetry.

[1]

19 A triangle is drawn on a grid of squares.
The triangle is translated from position A to position B.

Tick (✓) the correct instructions for the translation.

4 squares right and 6 squares up ☐

2 squares right and 4 squares up ☐

4 squares left and 2 squares up ☐

2 squares left and 4 squares down ☐

[1]

20 Pierre uses commutative properties to solve some of these calculations.

Tick (✓) all the calculations he could solve in this way.

6 × 3 × 5 ☐

30 ÷ 6 ☐

45 + 16 + 15 ☐

84 – 17 ☐
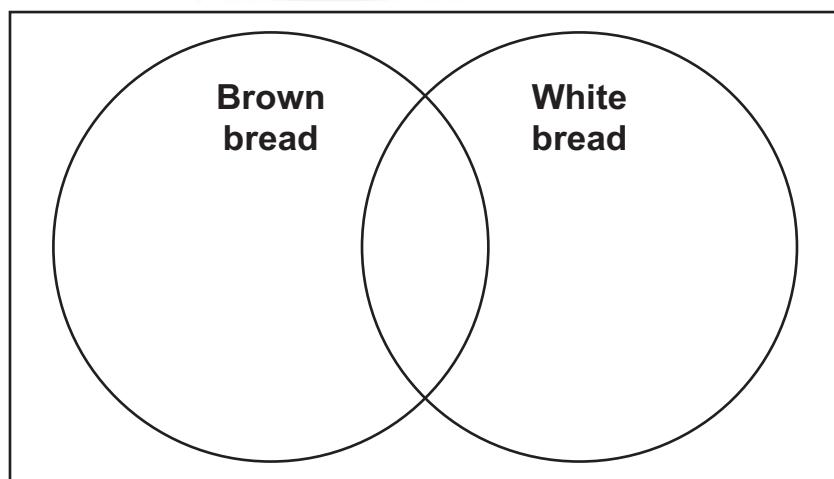
[1]

21 The children in Class 5 record the type of bread everyone eats.
The number of children in each group is shown on this Carroll diagram.

	Brown bread	Not brown bread
White bread	12	17
Not white bread	6	2

Write the same information on this Venn diagram.

[2]

22 Youssef uses some digit cards to make this multiplication statement.

| 4 | 1 | 2 | × | 3 |

Show how Youssef could use the **same digit cards** to make a multiplication statement with a higher product.

Write the digits on the cards to show two **different** ways.

☐ ☐ ☐ × ☐

☐ ☐ ☐ × ☐

[2]

23 Tick (✓) **all** the statements that could be regrouped as **32.23**

30 + 2.1 + 0.13 ☐

20 + 2.1 + 1.13 ☐

30 + 12.1 + 1.13 ☐

20 + 12.1 + 0.13 ☐

[1]

24 Write + or − in each box to make these statements correct.

−509 ☐ 9 = −491 ☐ 9

−9 ☐ 509 = 491 ☐ 9

[1]

25 Draw a line to match the calculation to the correct answer.

20.15

21.5

4.3 × 5

21.05

20.5

[1]

26 Lily has six digit cards.

| 2 | 3 | 4 | 5 | 6 | 7 |

She uses the cards in an addition calculation.
She does **not** need to regroup when she does the calculation.

Write digits in the boxes to show an addition calculation with no regrouping.

☐☐☐ + ☐☐☐ =
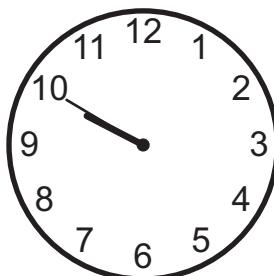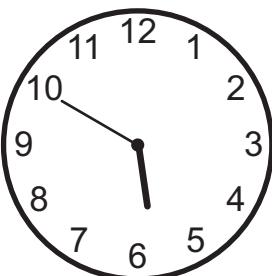
[1]
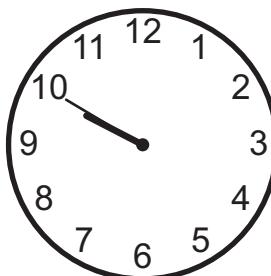
27 Here are four clocks showing the time in different cities when it is 17:50 in London.
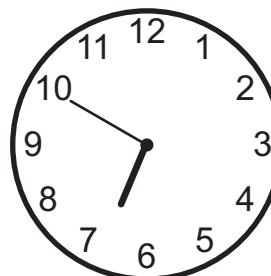
Vancouver
09:50 Today
− 8 hours

London
17:50 Today
+ 0 hours

Abu Dhabi
21:50 Today
+ 4 hours

Auckland
06:50 Tomorrow
+ 13 hours

(a) Write the time difference between Abu Dhabi and Vancouver.

.... hours [1]

(b) Write the time in London when it is 02:00 in Auckland.

.... [1]

28 Three children each have a set of these four digit cards.

| 6 | 5 | 4 | 0 |

They each use their cards to make a 4-digit number that is divisible by 8

Write three different numbers the children could make.

[   ][   ][   ][   ]   [   ][   ][   ][   ]   [   ][   ][   ][   ]

[2]

3129_01
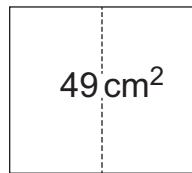
29 Samira has a square piece of paper with an area of 49 cm^2.

49 cm^2

Not drawn to scale

Samira cuts the square piece of paper exactly in half along the dotted line.
She makes two rectangles.

Calculate the perimeter of **one** of the rectangles.

.... cm [2]

30 Write a number in the box to make the statement correct.

$$\frac{7}{10} \text{ of } \$\boxed{} = \frac{2}{3} \text{ of } \$210$$

[1]

 [Turn over

31 and represent the prices of two different hats.

$$\text{beanie} + \text{beanie} + \text{cap} = \$18$$

$$\text{cap} = \text{beanie} + \text{beanie}$$
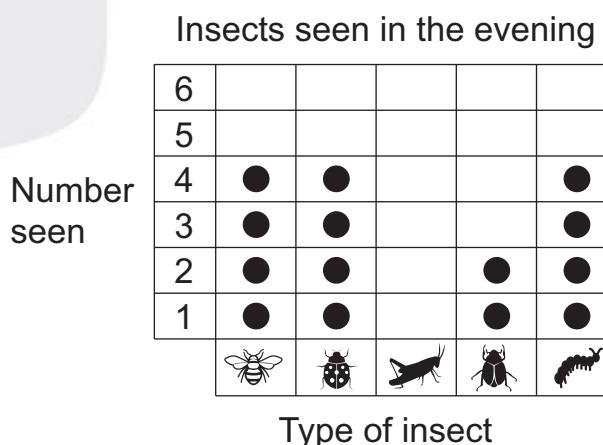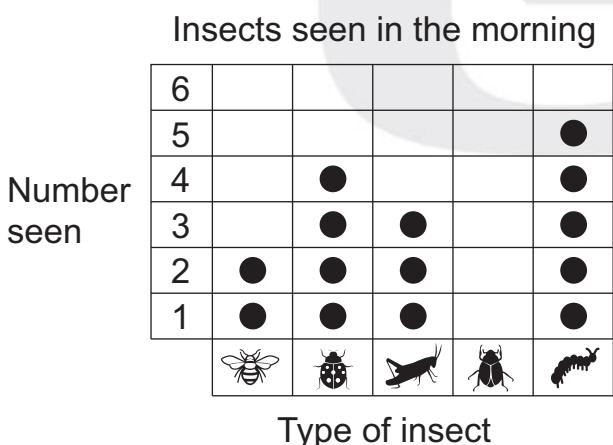
Complete each statement.

beanie = $ ....

cap = $ ....

[1]

32 Jamila counts insects in her garden for 5 minutes in the morning and evening.
She plots the results.

Insects seen in the morning

Insects seen in the evening

Suggest one reason why the results are different in the morning and evening.

....

.... [1]

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