Cambridge Assessment International Education

Mathematics

Stage 5

Paper 2

2024

Cambridge Primary Progression Test

Name

Class

Date

45 minutes

Additional materials: Calculator
Set square
Tracing paper (optional)

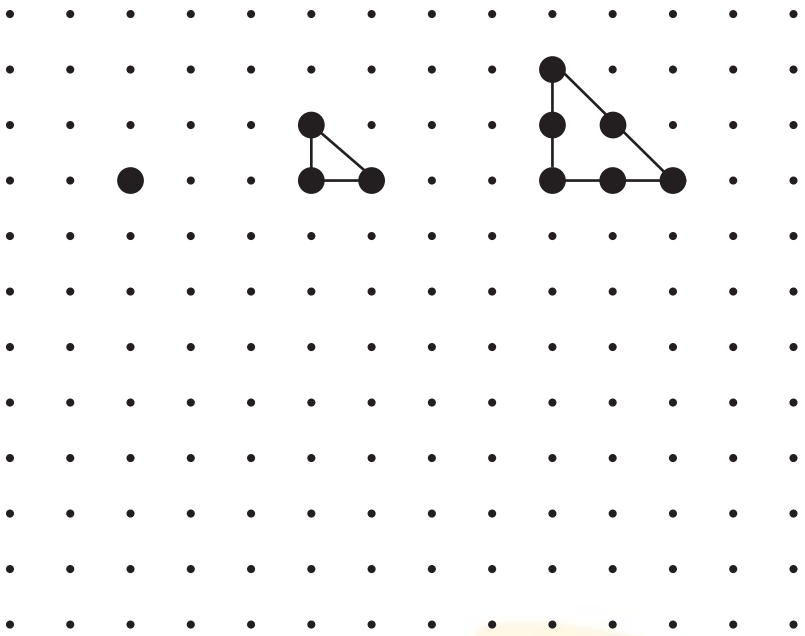
INSTRUCTIONS

- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.
- You 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 [ ].

1 Here is the spatial pattern for the first three triangular numbers drawn on a square dotty grid.

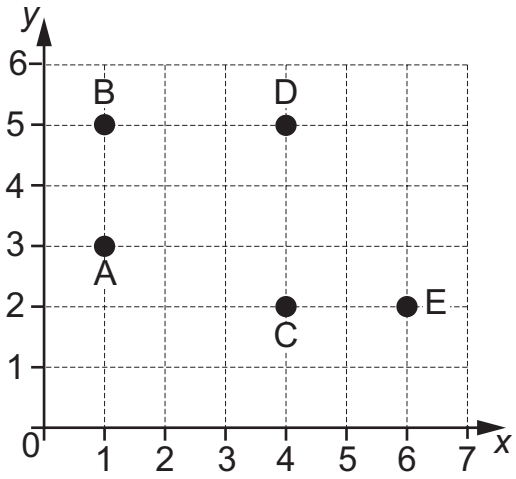


Draw the 5th triangular number on the square dotty grid. [1]

2 Write $7 \div 10$ as a fraction.

..... [1]

3 Here is a coordinate grid.
Points A to E are plotted on the grid.



Write the coordinates of the point that is closest to point C.

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

4 Here is the time on a digital clock.

15:52

Write the time 10 minutes later.

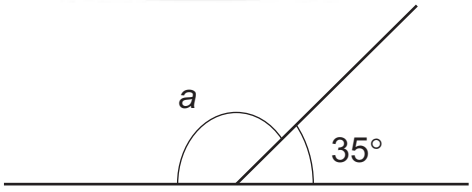
..... : ..... [1]

5 Complete the table of equivalent values.

Fraction	Percentage (%)	Decimal
$\frac{1}{2}$		
	30	
		0.7

[2]

6 Two angles are joined to make a straight line.



Not drawn to scale

Calculate the value of angle *a*.

..... ° [1]

7 Jamila and her friends record the number of people they see on the way to school.
Here is their data.

8 3 6 5 3

Write the correct number to complete each statement.

The median of the number of people is .....

The mode of the number of people is .....

[2]

8 Here are some mathematical symbols.

> < =

Write a symbol in each box to make the statements correct.

0.3 ☐ $\frac{1}{2}$

$\frac{3}{4}$ ☐ 40%

0.6 ☐ 60%

[1]

9 Eva chooses a number with 1 decimal place.
Her number rounds to 7 when rounded to the nearest whole number.

Write a number that Eva could choose.

..... [1]

10 Here are the names of four types of angles.

right reflex obtuse acute

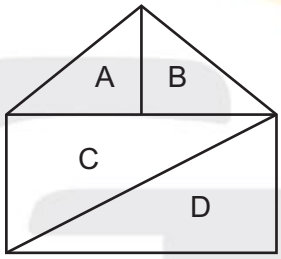
Write these types of angles in order of size, starting with the smallest.

....

smallest largest

[1]

11 Chen has a shape with an area of 20 cm^2.
The shape is made of four triangles.



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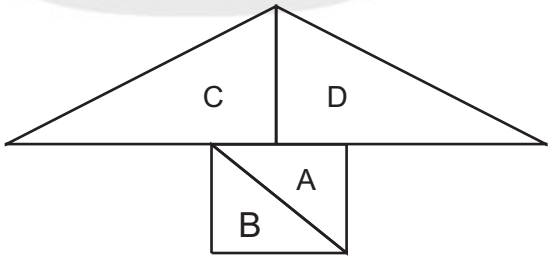
He arranges the four triangles to make a new shape.



Not drawn to scale

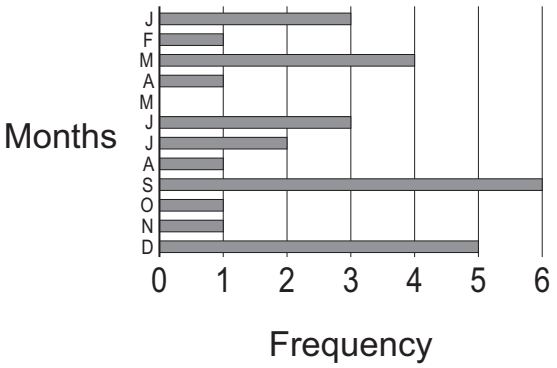
Write the area of the new shape.

..... cm^2 [1]

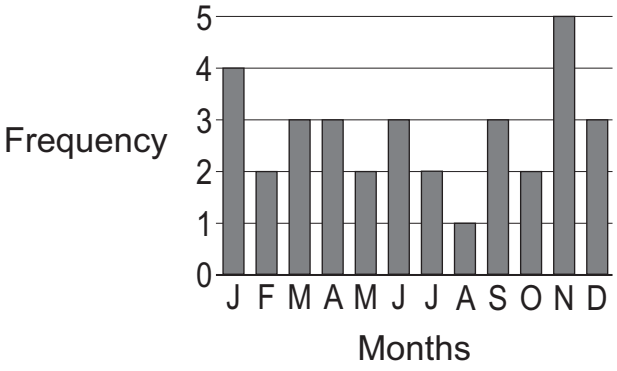
12 Mia wants to know in which months people have their birthday.
Mia collects data from the children in Class 5C and Class 5D.

She shows the results in two bar charts.

Months of birthdays in Class 5C



Months of birthdays in Class 5D



(a) Write the **total** number of children in the two classes who have a birthday in November (N).

..... [1]

(b) Write a month where a **total** of 3 children in the two classes have a birthday.

..... [1]

13 Rajiv wants to know the number of hops each child in Class 5 can complete in 1 minute.
Here is his data.

Number of hops	Tally marks
0 – 9	||
10 – 19	𝍸 𝍸 𝍸 𝍸 𝍸 ||
20 – 29	|

Rajiv says, 'I can improve the way I record my data'.

Write one way that Rajiv could improve the way he records his data.

.....

..... [1]

14 Pierre counts back in 3s starting at 20

Write down two numbers between 0 and –9 that Pierre will count.

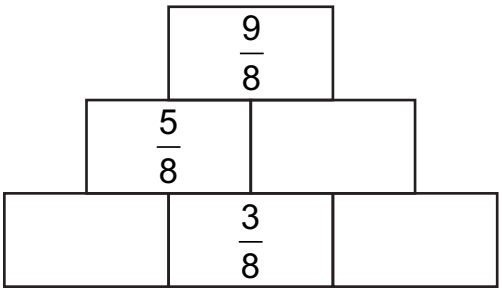
..... and ..... [1]

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

$8 + 3.5 \times \square = 50$

[1]

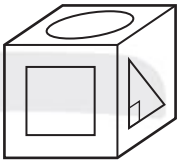
16 Here is an addition pyramid.
Each fraction is the total of the two fractions below it added together.



Complete the pyramid.

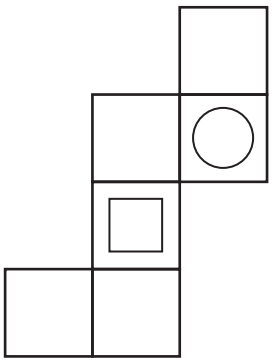
[1]

17 Here is a drawing of a cube.



There is a shape on three of the faces of the cube.

Draw the triangle in the correct position on the net of the cube.



[1]

18 Write the **smallest** possible whole number to complete the sentence.

..... hours is longer than the total number of hours in April, May and June.

[1]

19 **(a)** Write three **different** prime numbers with a total of 25

....

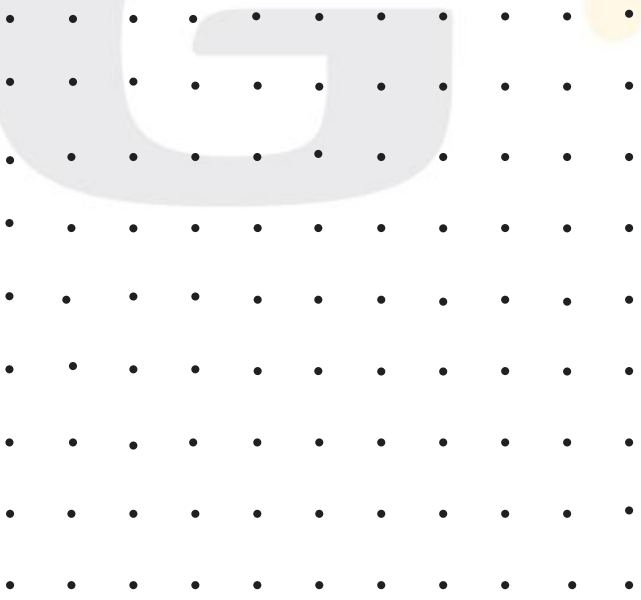
[1]

(b) Write two **different** prime numbers with a total of 25

....

[1]

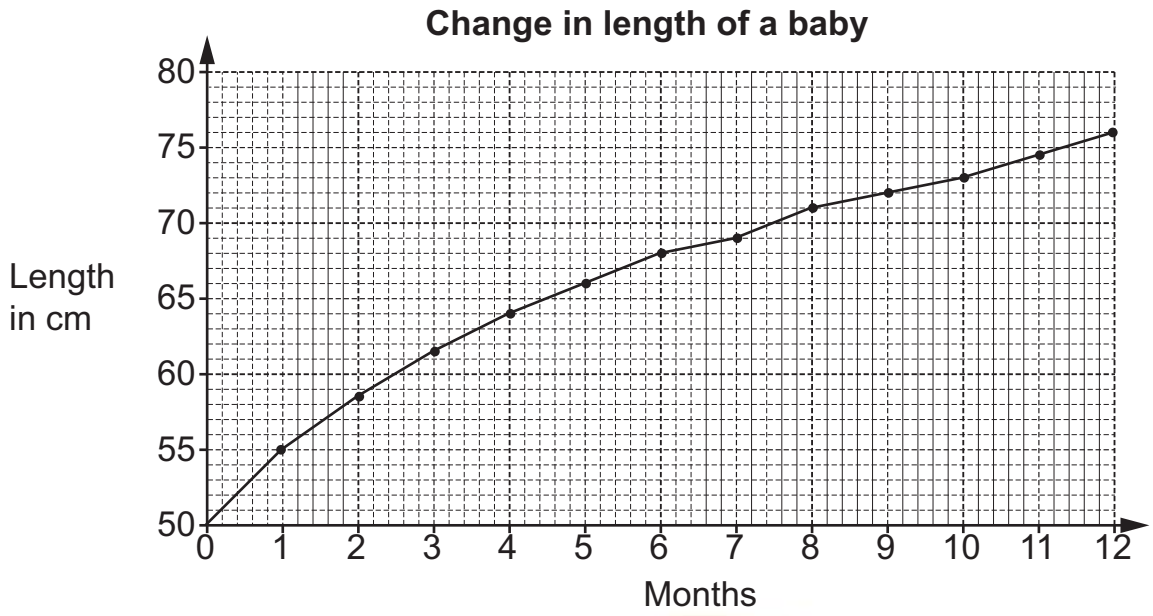
20 Here is a square dotty grid.



Angelique joins 4 dots to make a quadrilateral with **exactly** one line of symmetry.

Draw Angelique's shape on the grid. [1]

21 Here is a line graph.
The line graph shows how the length of a baby changes in twelve months.



Write the increase in length of the baby from 6 months to 9 months.

..... cm [1]

22 Ahmed and Yuri have some pencils.
Ahmed has **more** pencils than Yuri.
Yuri has an **even** number of pencils.

The number of pencils Ahmed has is represented by 

The number of pencils Yuri has is represented by 

 +  is greater than 60

If  is 45 write **two** possible values for 

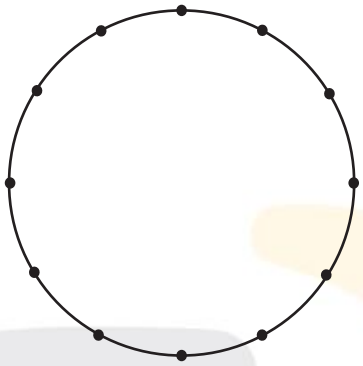
..... or ..... [1]

23 Samira thinks of a number.
She squares her number and subtracts 12
Her answer is 37

Write the number Samira thinks of.

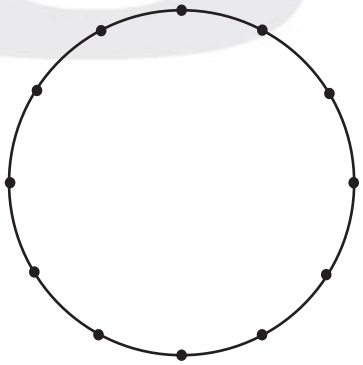
..... [1]

24 **(a)** Here is a circle with 12 equally spaced points marked.



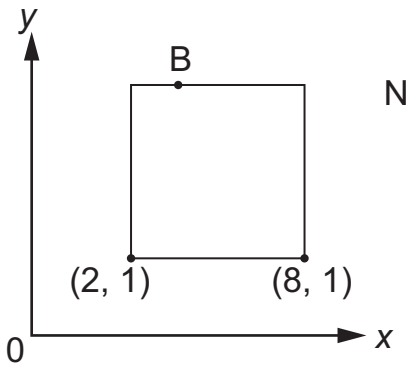
Draw an equilateral triangle by joining 3 of the points. [1]

(b) Here is a different circle with 12 equally spaced points marked.



Draw a scalene triangle by joining 3 of the points. [1]

25 Here is a square drawn on a coordinate grid.
The coordinates of two of the vertices are shown.



Not drawn to scale

Point B is marked on the side of the square.

Write a possible pair of coordinates for point B.

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

26 Here is part of a sequence.

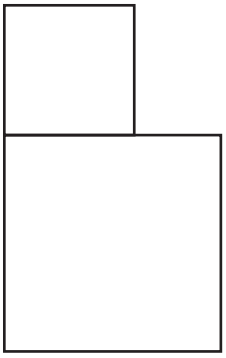
5 29

The sequence is made by adding a number to the previous term.
The same number is added each time.

Write the term that comes after 29 in the sequence.

..... [1]

27 Oliver has two square tiles.
The tiles are different in size.
The length of each tile is a whole number.
He makes a shape using his tiles.



Not drawn to scale

The area of his shape is $52\,cm^2$.

Calculate the perimeter of his shape.

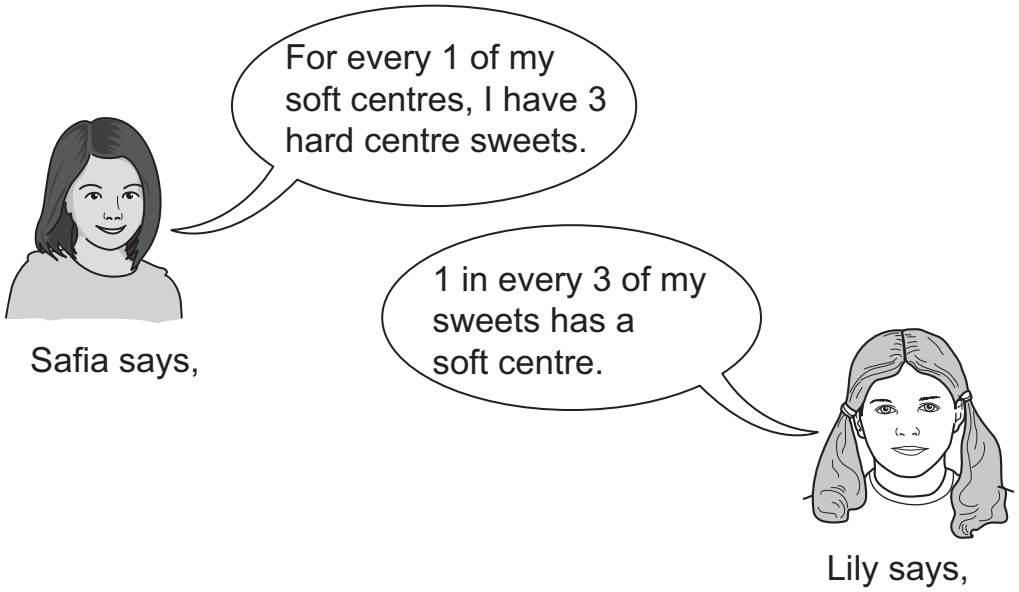
..... cm [2]

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

$\frac{1}{5}$ of \$ ☐ > $\frac{1}{2}$ of \$ ☐

[1]

29 Safia and Lily each have the same number of sweets.
Some of the sweets have soft centres and some of the sweets have hard centres.

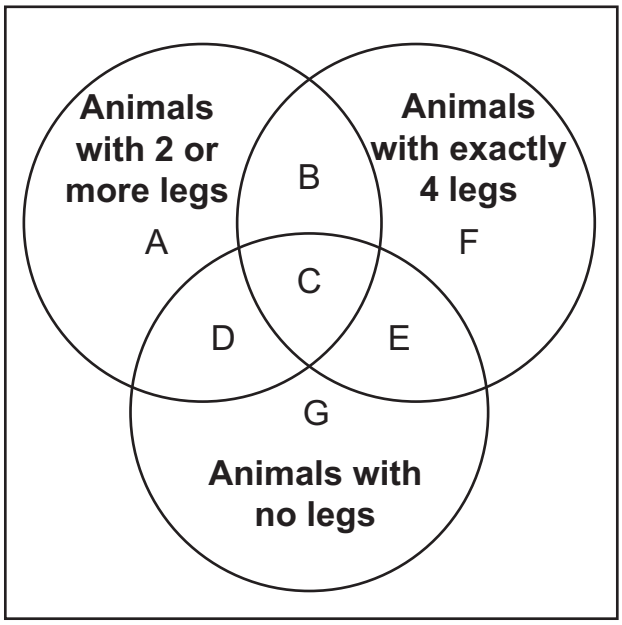


Safia has 27 sweets with hard centres.

Calculate the number of sweets with hard centres that Lily has.

..... [2]

30 Here is a Venn diagram.



Write the letters of **all** the sections of the Venn diagram that must be empty.

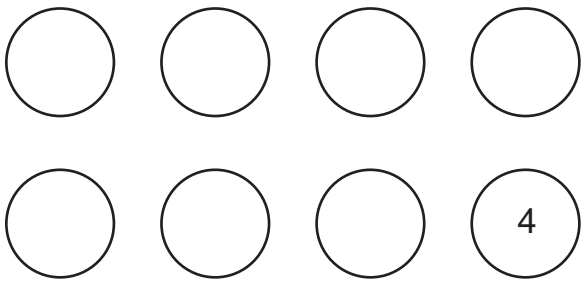
.....

[1]

31 Hassan has 8 counters.
He picks a counter at random.

He is equally likely to pick a 1 or 2
There is an even chance of picking an odd number.
The chance of picking a 4 is less likely than the chance of picking a 1 or a 2

Write one number on each counter to make the statements correct.
One has been done for you.



[1]

32 The teacher asks Class 5 to choose their favourite colour.
Here is a frequency table which shows this information.

Favourite colour	Frequency
red	4
yellow	2
green	8
blue	6

Tick (✓) the Carroll diagram that shows the same information as the frequency table.

	Red	Not red
Green	0	8
Not green	4	6

☐

	Yellow	Not yellow
Red	0	4
Not red	6	2

☐

	Blue	Not blue
Yellow	0	2
Not yellow	6	12

☐

	Green	Not green
Blue	0	8
Not blue	6	6

☐

[1]

33 A number is represented by △

△ + 7 is greater than 30

△ – 7 is less than 20

Write **all** the possible values for △

.....[1]

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