Cambridge Assessment International Education

Mathematics

Stage 6

Paper 2

2022

Cambridge Primary Progression Test

Name

Class

Date

45 minutes

Additional materials: Calculator
Compasses
Protractor
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 Write the cube of 4

..... [1]

2 Calculate.

$$\frac{2}{3} + \frac{3}{5}$$

Give your answer in the simplest form.

..... [1]

3 A farmer records the number of eggs laid by his chickens each day.
He records the data in a frequency table with **equal** intervals.

Number of eggs	Frequency
0 – 4	7
	3
10 – 14	6
	4

(a) Complete the frequency table. [1]

(b) Complete the sentence with the correct number.

The farmer records the number of eggs laid by his chickens for ..... days.

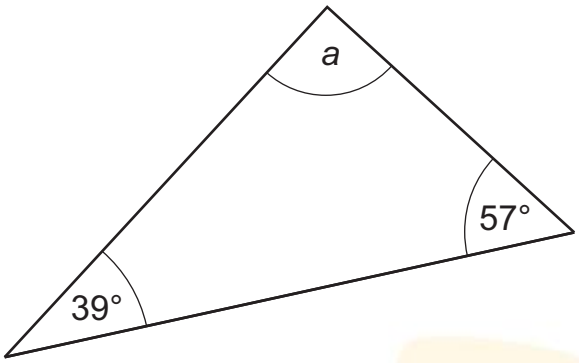
[1]

4 Draw a ring around **each** prime number.

21 23 31 33 41 43

[2]

5 Here is a triangle.



Not drawn to scale

Work out the value of angle *a*.

..... ° [1]

6 Here are three symbols.

>	<	=

Write the correct symbol in each box.

2.18 ☐ 2.3

$\frac{7}{8}$ ☐ $\frac{3}{4}$

0.6 ☐ $\frac{3}{5}$

$\frac{1}{8}$ ☐ 0.25

[2]

7 A set of numbers are sorted using a Carroll diagram.

	A multiple of 3	Not a multiple of 3
A multiple of 6	A	B
Not a multiple of 6	C	D

(a) Draw a ring around the section that will **always** be empty.

A B C D

[1]

(b) Draw a ring around the section that will **always** contain even numbers.

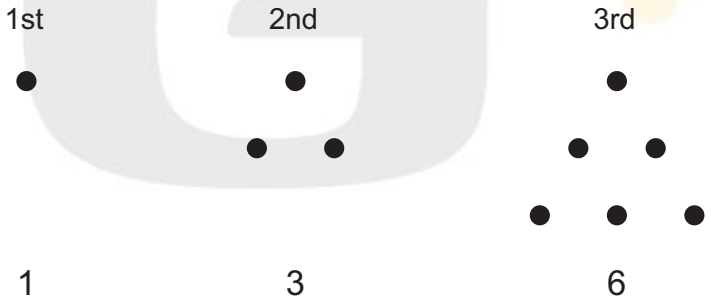
A B C D

[1]

8 Draw a circle with a radius of 4 cm.
Use a pair of compasses.

[1]

9 Here is the sequence of triangular numbers.
The pattern continues in the same way.



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

The 5th triangular number is 16 ☐

The 6th triangular number is odd. ☐

The sum of the first 4 triangular numbers is even. ☐

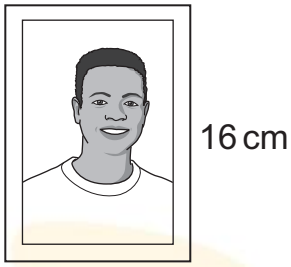
An even triangular number always follows an odd triangular number. ☐

[2]

10 Here is a picture of some of the children in Class 6

Not drawn to scale

Draw a ring around **each** picture that is in the same proportion as the picture of the children in Class 6



Not drawn to scale

[2]

11 Here are the first three terms of a sequence.
This sequence is made by **doubling** the sequence of square numbers.

2, 8, 18, …

(a) Write the next number in the sequence.

..... [1]

(b) Write the 8th term in the sequence.

..... [1]

12 Complete the following number sentences.

(a) 2.047 = ☐ units ☐ tenths ☐ hundredths ☐ thousandths

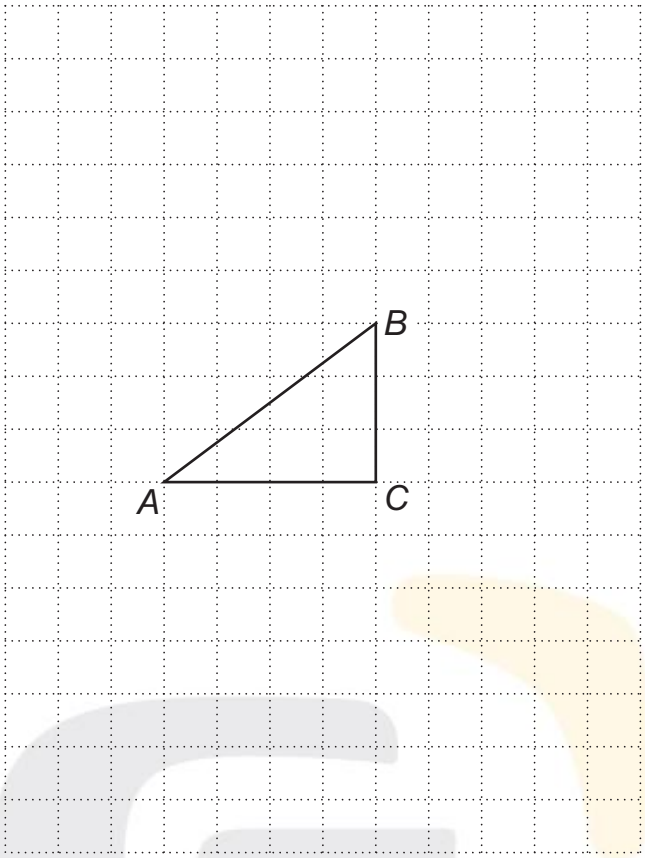
[1]

(b) 3.67 = ☐ hundredths

[1]

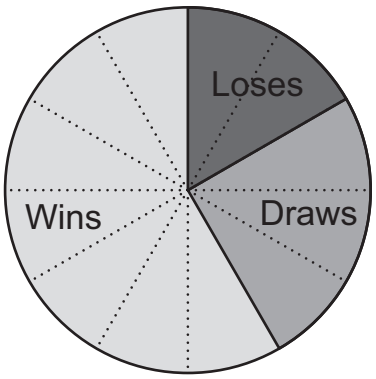
13 A triangle is drawn on a grid of squares.

Rotate the triangle 90° clockwise about the point *B*.



[2]

14 A netball team plays 36 matches.
The results are shown in a pie chart.



Results for netball team

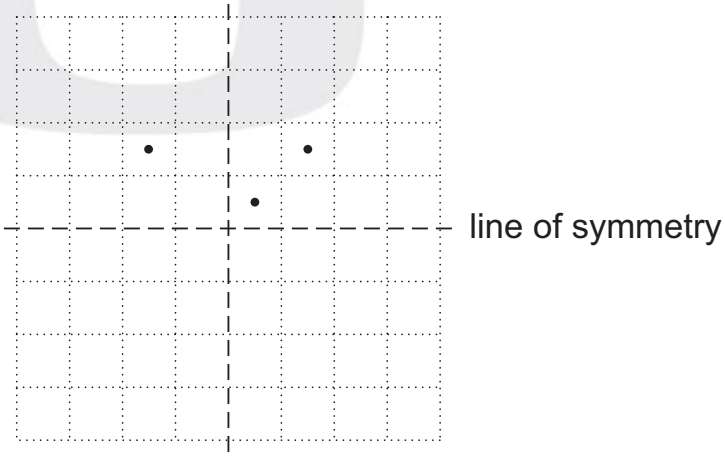
(a) Write the number of matches the netball team loses.

..... [1]

(b) Write the percentage of matches the netball team draws.

..... % [1]

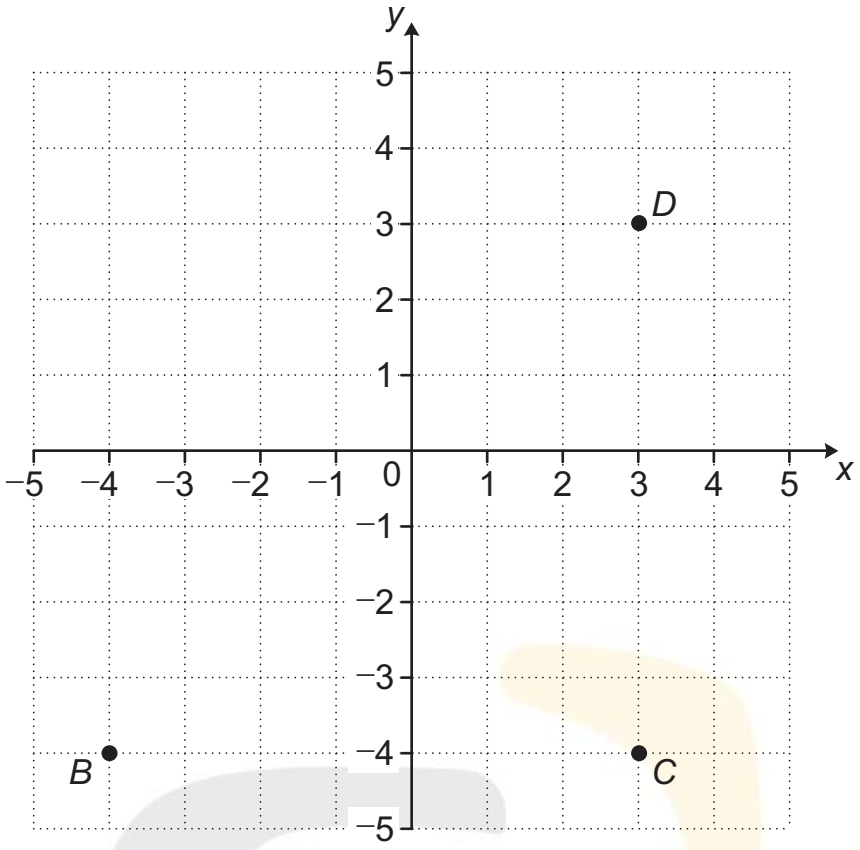
15 Here is a pattern of dots drawn on a grid of squares.



Write the smallest number of dots that must be added to make a pattern of dots with two lines of symmetry.

..... [1]

16 Here is a coordinate grid.



(a) *ABCD* is a square.

Write the coordinates of *A*.

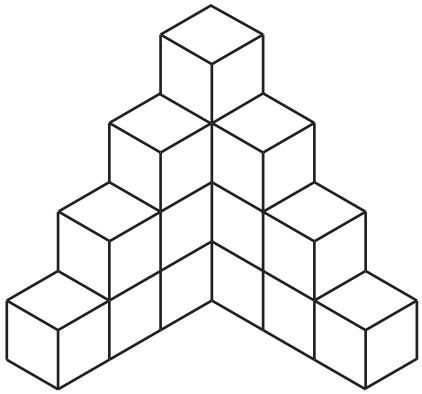
(..... , ...) [1]

(b) A straight line joins *B* and *C*.

Write the coordinates of another point on the line.

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

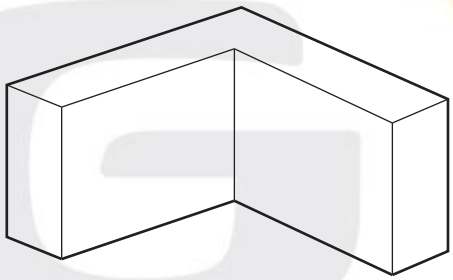
17 Chen places unit cubes on top of each other to make a 3D shape.



(a) Write the number of unit cubes Chen uses.

..... [1]

He adds more unit cubes to make a new 3D shape.



(b) Write the smallest number of cubes Chen adds.

..... [1]

18 A recipe uses 3 cups of butter for every 2 cups of sugar.

(a) Mike uses 6 cups of sugar.

Write the number of cups of butter he uses.

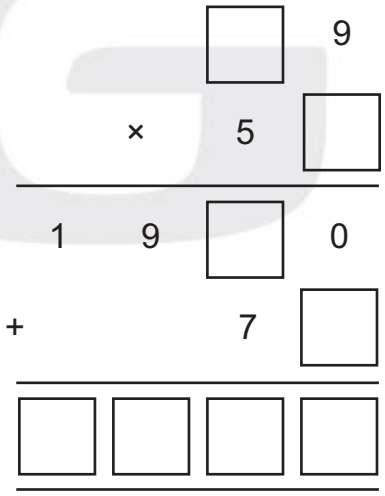
..... [1]

(b) Lily uses 4 **more** cups of butter than sugar.

Write the number of cups of butter she uses.

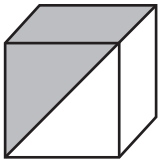
..... [1]

19 Write a number in each box to make the calculation correct.

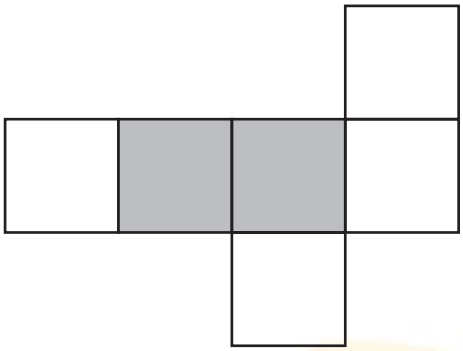


[2]

20 Two right-angled triangular prisms are joined together to make a cube.
One prism is grey and one prism is white.



Complete the shading to show the net of the cube.



[2]

21 Four children each have some beads.
The mean number of beads is 8

Rajiv brings some more beads.

The mean number of beads for the five children is now 9

Write the number of beads Rajiv brings.

..... [1]

22 Angelique beats her drum every 2 seconds.
Mia beats her drum every 3 seconds.
Gabriella beats her drum every 5 seconds.

The three girls start by beating their drums at the same time.

Write the correct number in each box to complete the sentences.

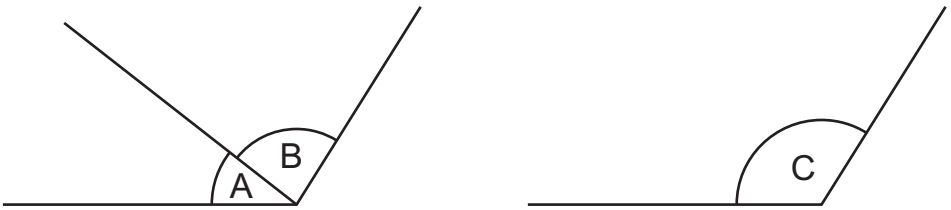
The 1st time two drums are beaten together is **after** ☐ seconds.

The 2nd time two drums are beaten together is **after** ☐ seconds.

The 1st time three drums are beaten together is **after** ☐ seconds.

[2]

23 Angle *A* and angle *B* are placed next to each other to make angle *C*.



Complete the table about the size of angle *C*.

Choose from the word cards.

always	sometimes	never

One has been done for you.

Size of angle A	Size of angle B	Size of angle C	always / sometimes / never
acute	acute	acute	sometimes
acute	acute	obtuse	
acute	obtuse	obtuse	
acute	obtuse	acute	
obtuse	obtuse	reflex	

[2]