Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

3083164721

MATHEMATICS **0096/01**

Paper 1 **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 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 [ ].

This document has **16** pages.

[Turn over

1 Round 3.47 to the nearest whole number.

[1]

2 Calculate.

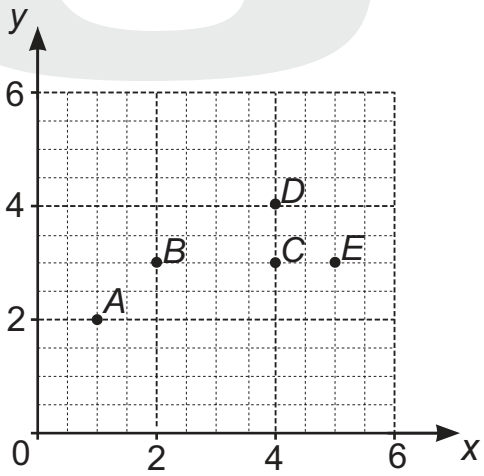
$\frac{5}{2}$ lots of 8

[1]

3 Write the fraction $\frac{15}{25}$ in its simplest form.

[1]

4 Here are some points marked on a coordinate grid.



Write the letters of **all** the points that are closer to the *x*-axis than they are to the *y*-axis.

[1]

5 Complete these statements.

$-16 - 5 =$ ☐

$-16 + 5 =$ ☐

[1]

6 Use a protractor and ruler to draw an angle of 135°

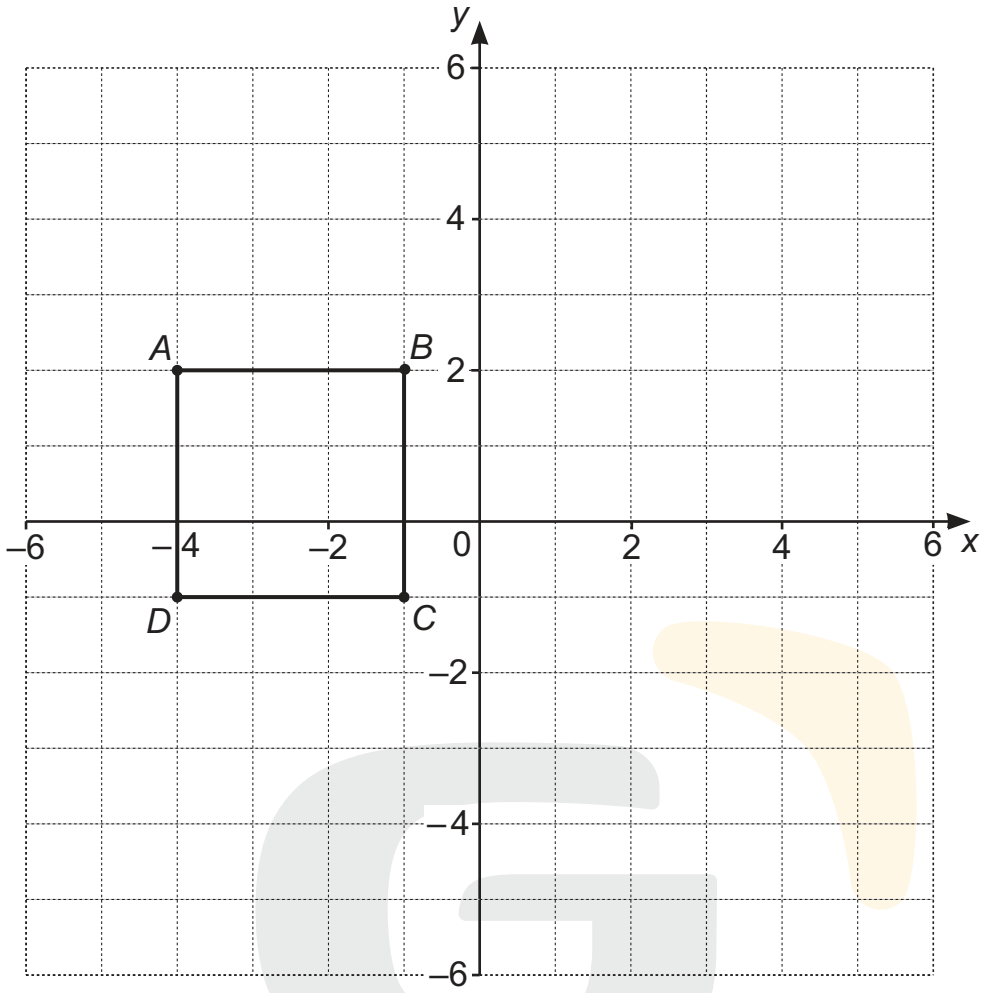
[1]

7 Write three **different** prime numbers in the boxes to complete the statement.

☐ + ☐ + ☐ = 23

[1]

8 Here is a square drawn on a coordinate grid.



The square is translated.
The new coordinates of point *D* are (–4, 2).

Write the **new** coordinates of point *B*.

(.. , ..) [1]

9 Draw a ring around **all** the calculations that are equivalent to 6 × 25 × 2 + 7

3 × 50 + 7 7 + 50 × 6 100 × 3 + 7 6 × 25 × 9

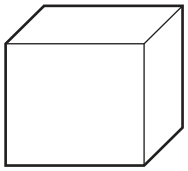
[1]

10 Here are four calculations.

17.2 × 4 17.09 × 4 1.72 × 39 1.7 × 39

Draw a ring around the calculation that gives the **largest** answer.
You do not need to work out the answers. [1]

11 Here is a sketch of a cube.



Not drawn to scale

The area of one face is 9 cm^2.

Calculate the total surface area of the cube.

cm^2 [1]

12 Here is a set of angles.

100° 90° 65° 45° 35°

Draw a ring around the **three** angles that add together to make a straight line. [1]

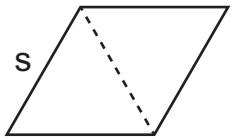
13 The perimeter, p, of an equilateral triangle with side length, s, is written as

$$p = s + s + s$$

(a) Find the value of p if s = 12 cm.

cm [1]

(b) Two **identical** equilateral triangles are joined together to make a new shape.



Draw a ring around the correct expression for the perimeter, d, of the new shape.

d = s + s + s

d = s + s + s + s

d = s + s + s + s + s

d = s + s + s + s + s + s

[1]

14 Here are four digit cards.

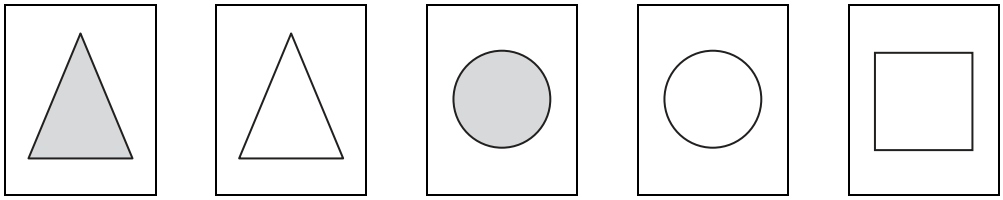
3	4	5	6

Use **all** four digit cards to complete the boxes to create the calculation with the **smallest** possible whole number answer.

☐ ☐ ☐ ÷ ☐ =

[1]

15 Here are five cards with a white or grey shape drawn on them.



(a) Mia picks **one** card at random.
The letters **A**, **B** and **C** describe three different events.

A Mia picks a card with a grey shape.
B Mia picks a card with a white shape.
C Mia picks a card with a square.

Write the events **A**, **B** and **C** in order of probability, starting with the lowest.

lowest probability ☐ ☐ highest probability

[1]

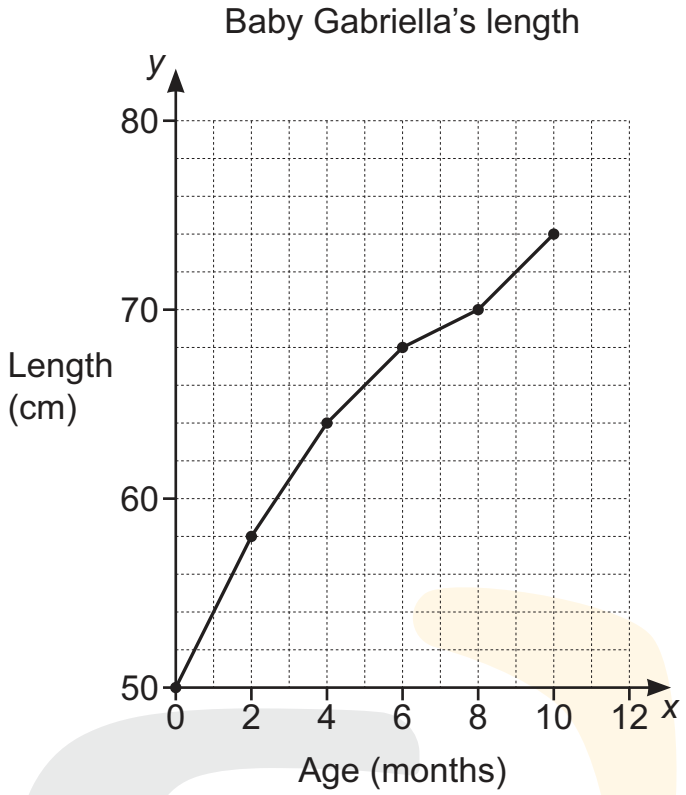
(b) Pierre picks **one** card at random.

Tick (✓) **all** the pairs of events that are mutually exclusive.

Event 1	Event 2	Mutually exclusive
Pierre picks a white shape	Pierre picks a grey shape	
Pierre picks a triangle	Pierre picks a grey shape	
Pierre picks a circle	Pierre picks a triangle	
Pierre picks a square	Pierre picks a white shape	

[1]

16 Baby Gabriella's length is measured every 2 months.
Here is a line graph showing her length.



(a) Baby Gabriella is 78 cm long when she is 12 months old.

Plot this information and complete the line graph. [1]

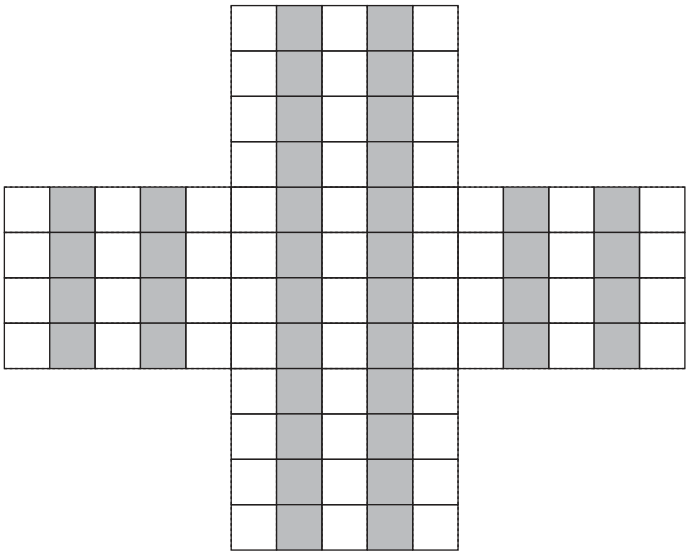
(b) Draw a ring around the age range when baby Gabriella grew the most.

0 – 2 months 2 – 4 months 4 – 6 months

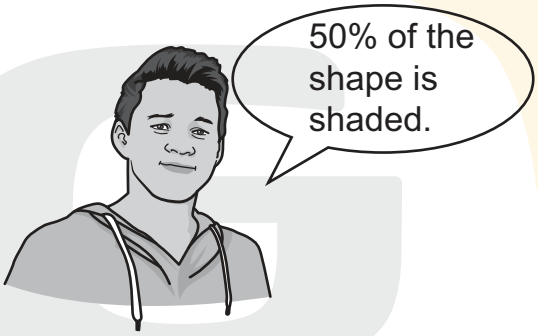
6 – 8 months 8 – 10 months 10 – 12 months

[1]

17 Carlos draws a shape made of squares.
He shades part of the shape.



Carlos says,



Tick (✓) to show if Carlos is correct.

Yes ☐ No ☐

Explain how you know.

.

.

[1]

18 Here is part of a sequence.

1.06 1.04 1.02 . . . .

The sequence continues in the same way.

Write the next **two** numbers in the sequence. [1]

19 Here is a recipe for making strawberry milkshake.

One strawberry milkshake
Ingredients 8 strawberries 250 ml milk 2 ice cubes **Method** Place all the ingredients in a blender for one minute.

Chen uses the recipe to make strawberry milkshakes for his friends.
He has

- 56 strawberries
- 1.5 litres milk
- 20 ice cubes

Calculate the maximum number of strawberry milkshakes Chen could make with his ingredients.
Show your working.

[2]

20 Here are three digit cards.

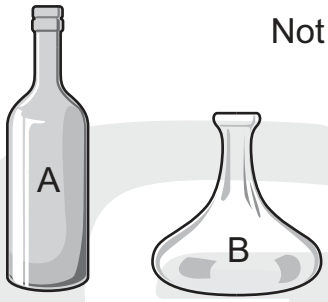
2	5	7

Use **all** three digit cards to make the **largest** possible answer.

$$\square \times (\square - \square)$$

[1]

21 Here are two empty bottles.



Not drawn to scale

Naomi pours water with a volume of 600 ml into bottle A.
Bottle A is now half full.

Naomi then pours half of the water in bottle A into bottle B.
Bottle B is now half full.

Write the capacity of bottle A.

ml

Write the capacity of bottle B.

ml

[2]

22 A bag contains red, white and black beads only.
There are 8 beads in the bag altogether.
Mike picks **one** bead from the bag at random.

There is an even chance of picking a black bead.
There is a greater chance of picking a red bead than a white bead.

Complete the table about Mike's beads.

Colour of bead	Number of beads
Red	
White	
Black	

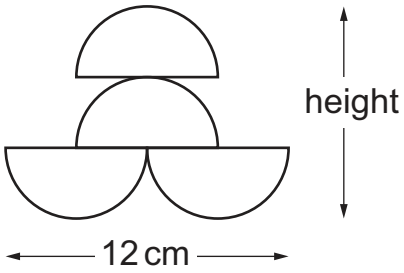
[1]

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

$\square \times 5 = \frac{3}{4}$

[1]

24 Two **identical** circles are cut in half.
The four pieces are arranged to make a new shape of width 12 cm.



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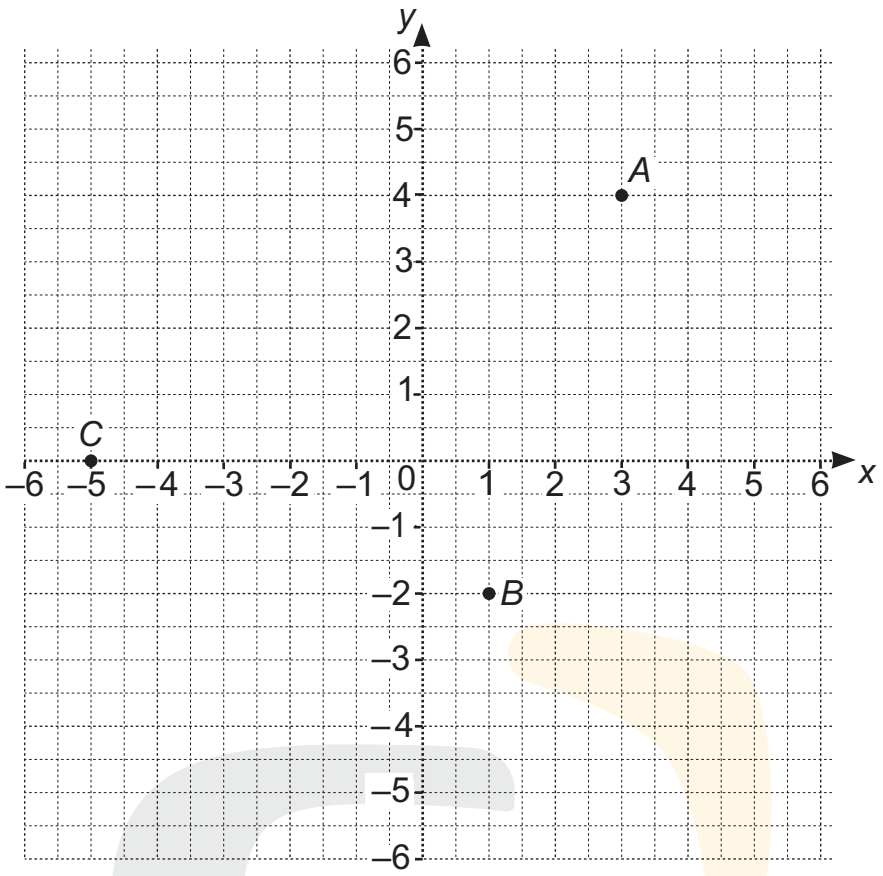
Write the height of the new shape.

. cm [1]

25 Points *A*, *B* and *C* are plotted on the coordinate grid.



(a) Write the coordinates of the middle point on the line joining *A* and *B*.

(,) [1]

(b) *ABCD* is a square.

Write the coordinates of point *D*.

(,) [1]

26 Lily has four digit cards.

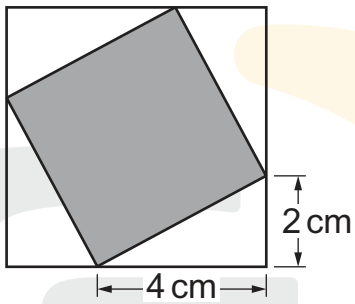
3	4	5	6

Lily uses the cards to make a 3-digit number that is divisible by 6

Write **all** the different numbers Lily could make.

[2]

27 Yuri arranges four **identical** right-angled triangles to make a square.



Not drawn to scale

Calculate the area of the shaded square.

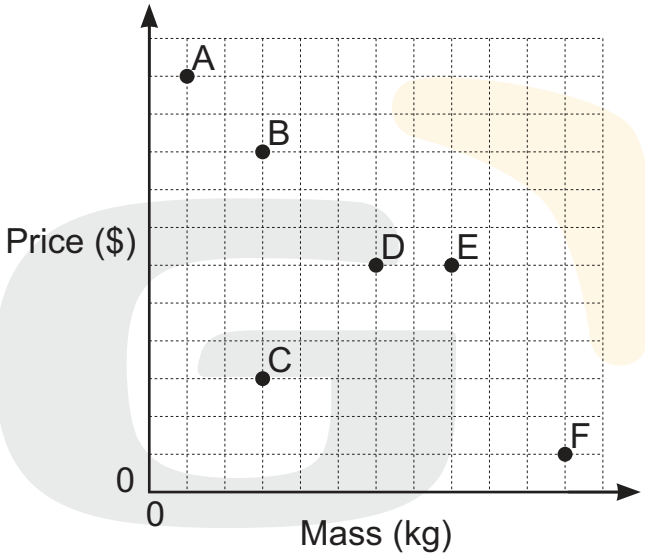
cm^2 [2]

28 Write a single digit in each box to complete the statement.

6 tens + 308 hundredths + 47 thousandths = $\square\square.\square\square\square$

[1]

29 A chef wants to buy a large amount of flour.
The six bags of flour he could buy are shown in this scatter graph.
They are labelled A to F.



(a) Write the letter of the bag of flour that has the lowest price for each kilogram.

[1]

(b) Write the letters of the **two** bags of flour where the price for each kilogram is the same.

[1]

30 Here is a grid with two symbols.

○	○	○	12
○	△	○	13
△	△	△	
13	14	13	

Each symbol represents a whole number.
The totals of each of the columns and two of the rows are shown.

Complete the missing row total.

[1]

31 Safia chooses a number with three digits.
She multiplies her number by 100
The answer also has three digits.

Write a number Safia could choose.

[1]