

**Cambridge IGCSE™**CANDIDATE
NAMECENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

MATHEMATICS**0580/13**

Paper 1 (Core)

October/November 2024**1 hour**

You must answer on the question paper.

You will need: Geometrical instruments

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 use a calculator where appropriate.
- You may use tracing paper.
- You must show all necessary working clearly.
- Give non-exact numerical answers correct to 3 significant figures, or 1 decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
- For π , use either your calculator value or 3.142.

INFORMATION

- The total mark for this paper is 56.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages. Any blank pages are indicated.



- 1 Write 6475 correct to the nearest ten.

..... [1]

- 2 Write 0.75 as a fraction.

..... [1]

- 3 A piece of string has length 65.1 cm.
The string is cut into 7 equal pieces.

Find the length of each piece.

.....cm [1]

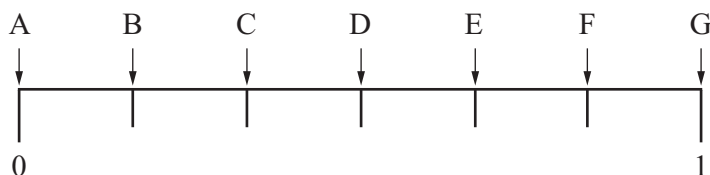
- 4

7	19	8	12	3	12	9	7	12
---	----	---	----	---	----	---	---	----

Find the mode of these numbers.

..... [1]

- 5 A bag contains 6 red balls, 4 green balls and 2 blue balls.
Zia takes a ball from the bag at random.



Write down the letter from the probability scale that shows the probability that

- (a) Zia takes a green ball

..... [1]

- (b) Zia takes a yellow ball

..... [1]

- (c) Zia does **not** take a blue ball.

..... [1]



* 0000800000003 *



3



6 These are the first four terms of a sequence.

19 26 33 40

(a) (i) Find the next term.

..... [1]

(ii) Write down the term to term rule for this sequence.

..... [1]

(b) These are the first four terms of another sequence.

-1 2 5 8

Find the n th term of this sequence.

..... [2]

7 Simplify.

$$3p - t - p - 4t$$

..... [2]

8

61	62	63	64	65	66	67	68	69
----	----	----	----	----	----	----	----	----

From the list of numbers, write down

(a) a cube number

..... [1]

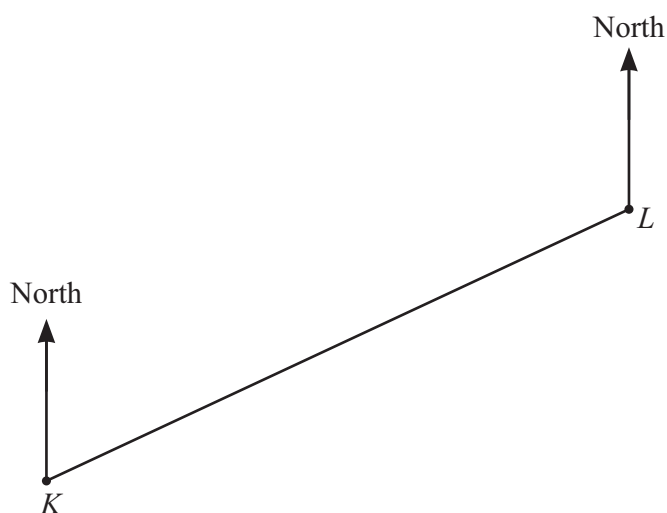
(b) a prime number.

..... [1]





- 9 The scale drawing shows the positions of town K and town L .
The scale is 1 cm represents 10 km.



Scale : 1 cm to 10 km

- (a) Find the actual distance between town K and town L .

..... km [2]

- (b) Measure the bearing of town L from town K .

..... [1]

- (c) Town M is 40 km from town L on a bearing of 140° .

On the scale drawing, mark the position of town M .

[2]



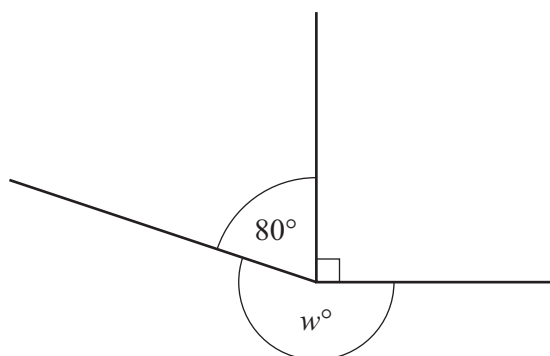


- 10 The surface area of a cube is 121.5 cm^2 .

Calculate the length of one side of the cube.

..... cm [2]

- 11 (a)



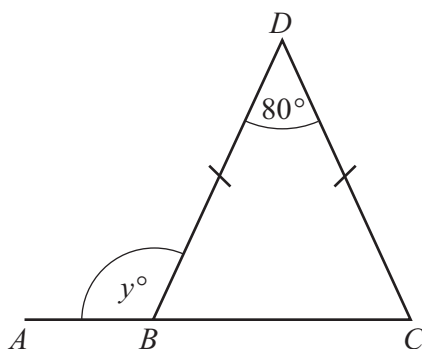
NOT TO
SCALE

The diagram shows three lines meeting at a point.

Find the value of w .

$w =$ [1]

- (b)



NOT TO
SCALE

BCD is an isosceles triangle.

ABC is a straight line.

Work out the value of y .

$y =$ [3]





12 Write down the equation of a line parallel to the line $y = 2x$.

..... [1]

13 Each student in a class of 20 students records the number of coins in their pockets.
The table shows the results.

Number of coins	0	1	2	3	4	5	6
Frequency	3	1	7	8	0	0	1

(a) Find the median.

..... [1]

(b) Calculate the mean.

..... [3]

14 Expand $4(x - 3)$.

..... [1]

15 Find the size of an interior angle of a regular 15-sided polygon.

..... [2]





- 16 Rio buys some pens.
He sells 63 pens, which is $\frac{7}{9}$ of the pens he buys.

Work out how many pens he buys.

..... [2]

- 17 Ed has n books.
Sam has 3 times as many books as Ed
Jane has 2 books fewer than Sam.
The total number of books is 54.

Use this information to write down an equation and solve it to find the value of n .

$n =$ [4]

- 18 **Without using a calculator**, work out $2\frac{1}{4} - 1\frac{11}{12}$.

You must show all your working and give your answer as a fraction in its simplest form.

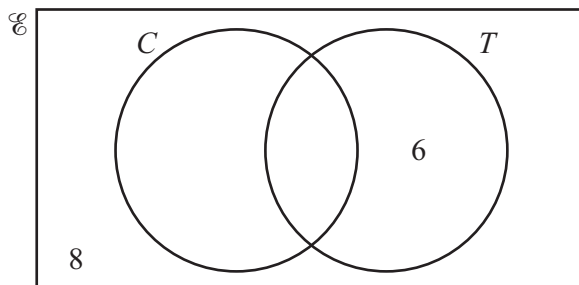
..... [3]





- 19 $\mathcal{C} = \{\text{workers in an office}\}$
 $C = \{\text{workers who drink coffee}\}$
 $T = \{\text{workers who drink tea}\}$

47 people work in the office.
 32 people drink tea.



(a) Complete the Venn diagram. [2]

(b) Write down $n(C \cap T)$. [1]

.....

(c) Work out the probability that a worker chosen at random does **not** drink coffee. [1]

.....





- 20 The weight, w grams, of a box is 463.9 grams, correct to 1 decimal place.

Complete the statement about the value of w .

$$\dots\dots\dots \leq w < \dots\dots\dots [2]$$

- 21 Calculate $(6.4 \times 10^5) \div (2.5 \times 10^{-7})$.
Give your answer in standard form.

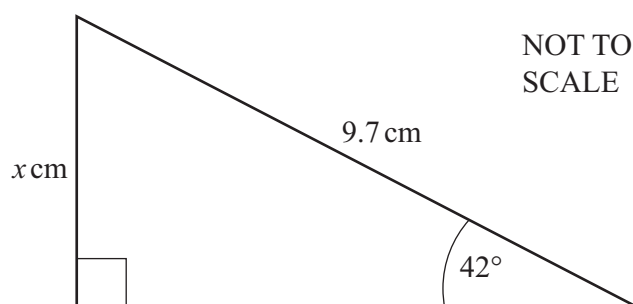
$$\dots\dots\dots [1]$$

- 22 Mia invests \$1270 for 5 years at a rate of 2.1% per year compound interest.

Calculate the value of her investment at the end of the 5 years.

$$\text{\$ } \dots\dots\dots [2]$$

23



The diagram shows a right-angled triangle.

Calculate the value of x .

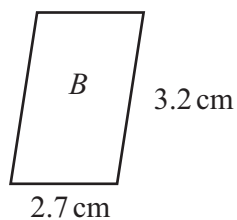
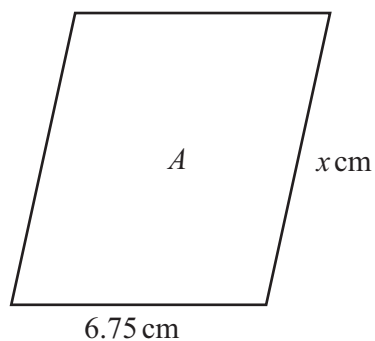
$$x = \dots\dots\dots [2]$$





24

10



NOT TO
SCALE

Shape A is mathematically similar to shape B .

Calculate the value of x .

$x = \dots\dots\dots$ [2]

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN



* 0000800000011 *



11



BLANK PAGE

DO NOT WRITE IN THIS MARGIN





Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

