

Please write clearly in block capitals.

Centre number

Candidate number

Surname

Forename(s)

Candidate signature

I declare this is my own work.

INTERNATIONAL GCSE

MATHEMATICS

Core Tier Paper 1C

C

Wednesday 14 May 2025

07:00 GMT

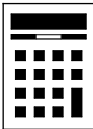
Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

a calculator

mathematical instruments.



Instructions

Use black ink or black ball-point pen. Draw diagrams in pencil.

Fill in the boxes at the top of this page.

Answer **all** questions.

You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.

If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).

Do all rough work in this book. Cross through any work you do not want to be marked.

Information

The marks for questions are shown in brackets.

The maximum mark for this paper is 80.

You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

If your calculator does not have a π button, take the value of π to be 3.142

Advice

Show all necessary working; otherwise marks for method may be lost.

For Examiner's Use	
Pages	Mark
2–3	
4–5	
6–7	
8–9	
10–11	
12–13	
14–15	
16–17	
18–19	
20–21	
22–23	
24–25	
TOTAL	



Answer **all** questions in the spaces provided.

1 (a) Write 35% as a decimal.

[1 mark]

Answer _____

1 (b) Write 0.59 as a fraction.

[1 mark]

Answer _____

1 (c) Write down the value of 5^3

[1 mark]

Answer _____

1 (d) Work out $\frac{1}{6}$ of 84

[1 mark]

Answer _____



2 (a) Write 1.73 metres in centimetres.

[1 mark]

Answer _____ centimetres

2 (b) Write 940 millilitres in litres.

[1 mark]

Answer _____ litres

3 Chocolate bars cost 74 cents each.

Work out the greatest number of bars you can buy with \$4

[2 marks]

Answer _____



- 4 (a)** Two of the three digits in 339 are the same.

Write down the **next integer** where two of the three digits are the same.

[1 mark]

Answer _____

- 4 (b)** All of the digits in 879 are different.

Write down the **next integer** where all of the digits are different.

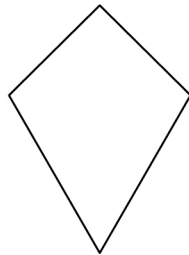
[1 mark]

Answer _____

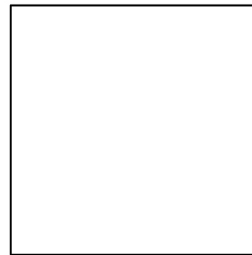


5 Here are four shapes.

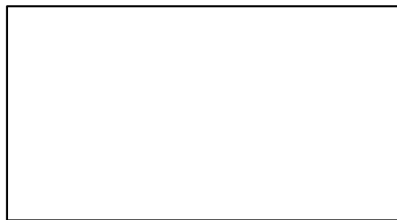
Kite



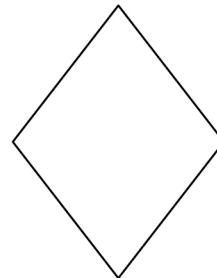
Square



Rectangle



Rhombus



5 (a) Which shape has exactly **one** line of symmetry?

[1 mark]

Answer _____

5 (b) Which shape has diagonals that do **not** cross at right angles?

[1 mark]

Answer _____



- 6** The table shows information about the numbers of pens and pencils in a box.

	Pens	Pencils	Total
Blue	14		43
Red		16	37
Total	35		80

- 6 (a)** Complete the table.

[3 marks]

- 6 (b)** What fraction of the **pens** are blue?
Give your answer in its simplest form.

[2 marks]

Answer _____



7

In the grid,

- the numbers in each row multiply to make 1440
- the numbers in each column multiply to make 1440

Complete the grid by using each of the numbers 10 15 18 24 **once** only.**[3 marks]**

	4	20	1440
8		12	1440
		6	1440
1440	1440	1440	

8

 $a = 5$ and $b = -3$

Tick whether each statement is true or false.

Give a reason for your answer.

[2 marks]

Statement	True	False	Reason
$ab = 15$			
$4a^2 = 100$			



- 9** There are 30 students in a class.
Each of the students is 12 or 13 years old.
One of the students is chosen at random.

- 9 (a)** Mo says,
“The probability that a 12-year-old is chosen is **equal** to the probability that a 13-year-old is chosen.”
Is Mo correct?
Tick a box.
Give a reason for your answer.

[1 mark]

Yes ☐ No ☐ Cannot tell ☐

Reason _____

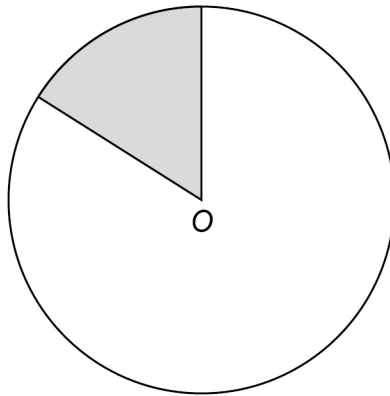
- 9 (b)** 9 of the 30 students passed a spelling test.
Show that the probability that the student chosen at random passed the test is less than 0.4

[1 mark]



10

Here is a circle, centre O.



Write down the name of the shaded area.

[1 mark]

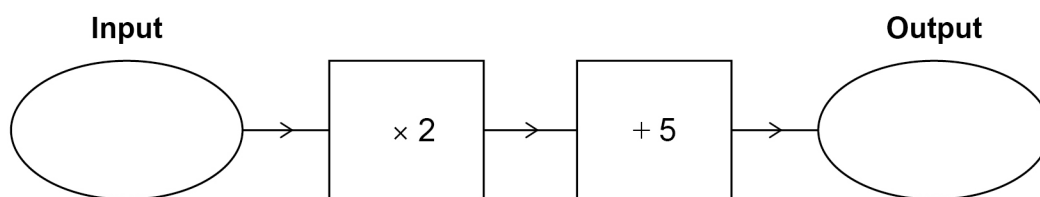
Answer _____

Turn over for the next question

Turn over ►



- 11** Here is a number machine.



- 11 (a)** Work out the **output** when the input is 3

[1 mark]

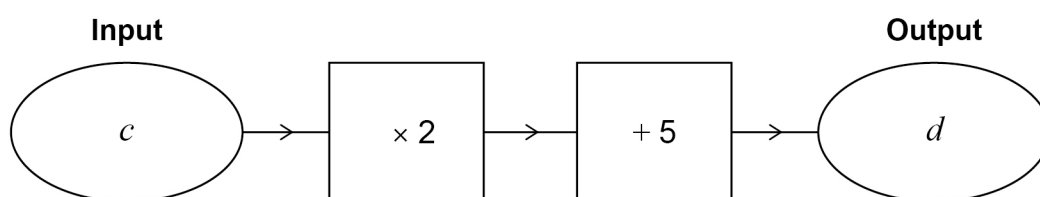
Answer _____

- 11 (b)** Work out the **input** when the output is 17

[1 mark]

Answer _____

- 11 (c)** Here is the same number machine with input c and output d .



Write a formula linking c and d .

[2 marks]

Answer _____



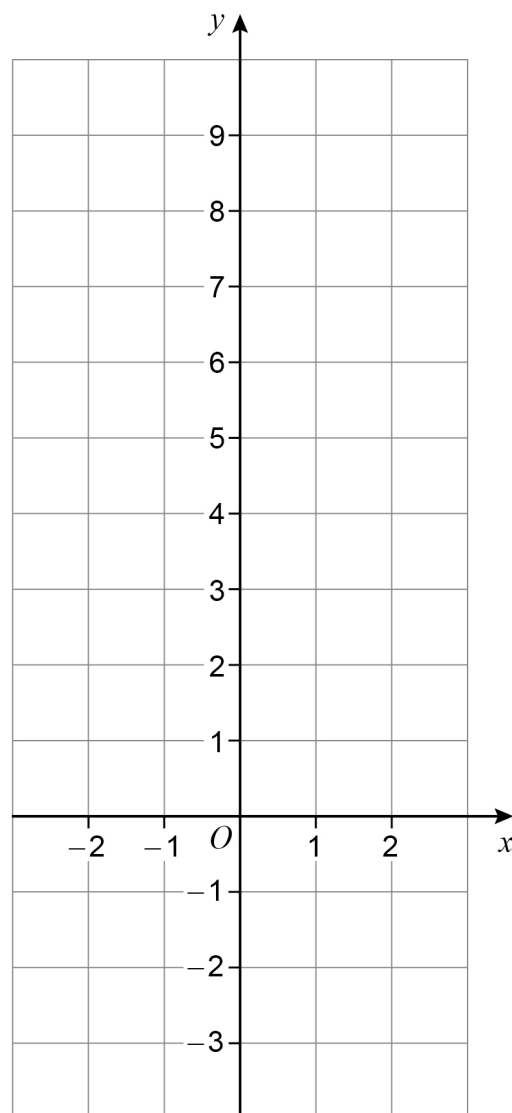
12 (a) Complete the table of values for $y = 2x + 3$

[2 marks]

x	-2	-1	0	1	2
y	-1			5	

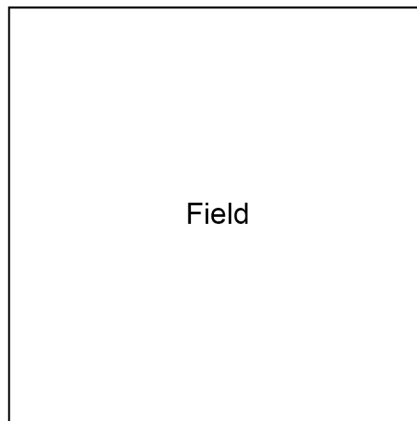
12 (b) Draw the graph of $y = 2x + 3$ for values of x from -2 to 2

[2 marks]



13

Waleed has a square field with perimeter 28 metres.



Not drawn
accurately

Perimeter = 28 metres

In the field, he plants 0.6 kilograms of seed per square metre.

How much seed does Waleed plant?

[4 marks]

Answer _____ kilograms



14

Jackie sees these adverts for the same model of bicycle at two shops.

Shop A

Normal Price \$395

Now 17% off the normal price

Shop B

Deposit \$100

Then pay 12 monthly payments of
\$20 each

In which shop is the bicycle cheaper, A or B?

You **must** show your working.

[4 marks]

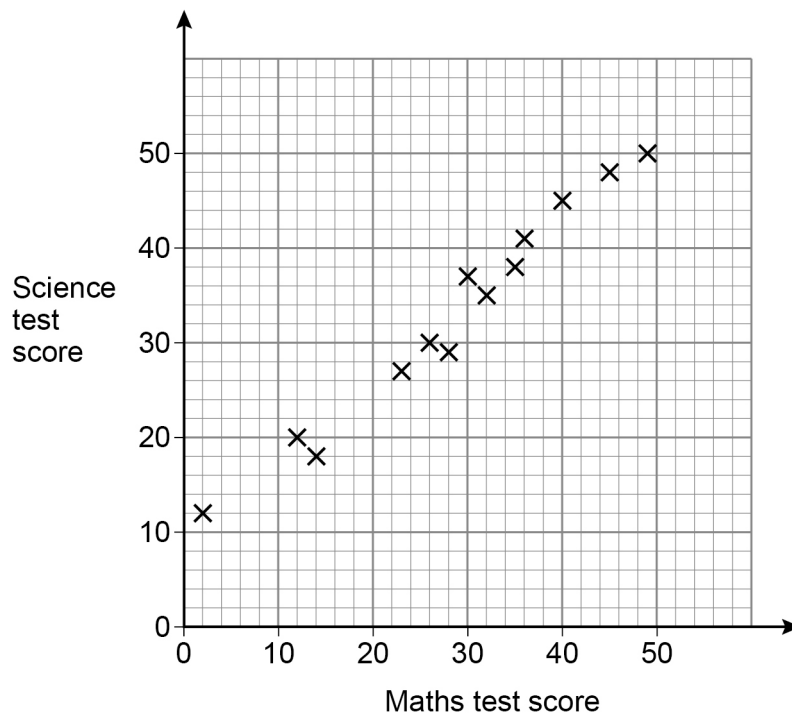
Answer _____

Turn over for the next question

Turn over ►



- 15** The scatter graph shows the maths and science test scores for 13 students.



- 15 (a)** What type of correlation does the scatter graph show?

[1 mark]

Answer _____

- 15 (b)** Draw a line of best fit.

[1 mark]

- 15 (c)** A student scored 18 in the maths test.

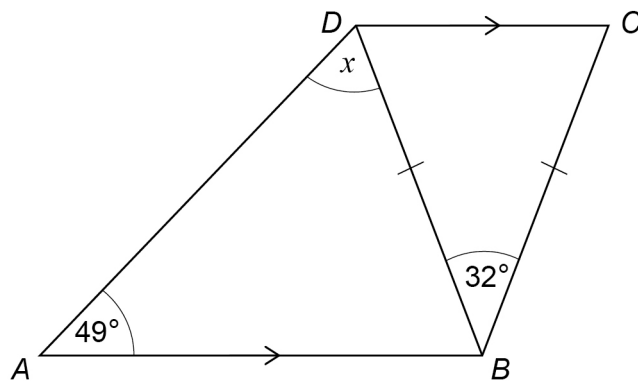
Use your line of best fit to estimate their score in the science test.

[1 mark]

Answer _____



16

Not drawn
accurately

In the diagram,

 AB is parallel to DC $BD = BC$ Work out the size of angle x .**[3 marks]**

Answer _____°

Turn over for the next question

Turn over ►



17

The mean height of 6 children is 102 cm

The heights of 5 of the children are

121 cm	110 cm	96 cm	85 cm	105 cm
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Work out the height of the other child.

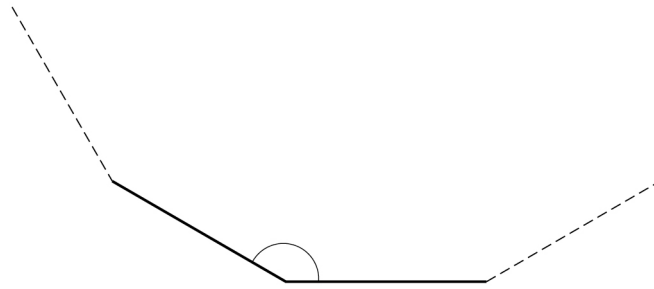
[3 marks]

Answer _____ cm



18

A regular polygon has 10 sides.



Not drawn
accurately

Work out the size of an interior angle.

[2 marks]

Answer _____ °

Turn over for the next question



19 (a) The n th term of a linear sequence is $4n + 15$

Work out the first two terms of the sequence.

[2 marks]

Answer _____

19 (b) Here are the first four terms of a different linear sequence.

– 4

– 1

2

5

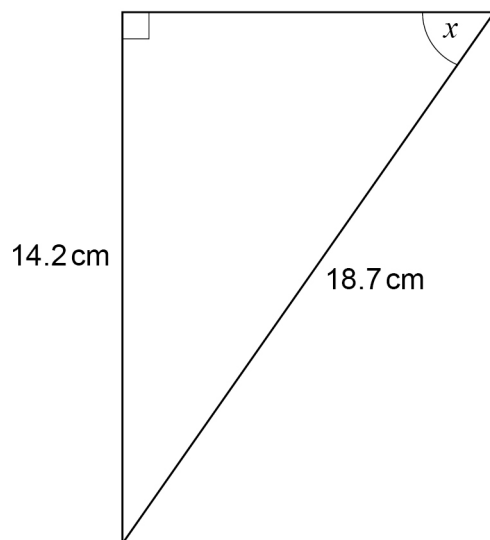
Write an expression for the n th term of this sequence.

[2 marks]

Answer _____



20

Use trigonometry to work out the size of angle x .You **must** show your working.Not drawn
accurately

[3 marks]

 $x =$ _____ °

Turn over for the next question

Turn over ►



21

A bag has 31 counters.

Each counter is black or white.

Colour	Number of counters
Black	$6y$
White	$8y - 4$

Is the number of black counters **greater than** the number of white counters?

Show working to support your answer.

[4 marks]



22

Draw a line to match each description to its calculation.

One has been done for you.

[3 marks]

Increases 500 by 7	500 × 1.07
Increases 500 by 7%	500 + 7
Works out 7% of 500	500 × 0.93
Decreases 500 by 7%	500 × 1.93
	500 × 0.07

Turn over for the next question

7

Turn over ►



- 23** The probability of spinning a head on a biased coin is 0.35
The coin is spun 200 times.

How many **more tails** than heads do you expect?

[3 marks]

Answer _____

- 24** A box has a mass of 25g, correct to the nearest gram.
Write down the **minimum** possible mass of the box.

[1 mark]

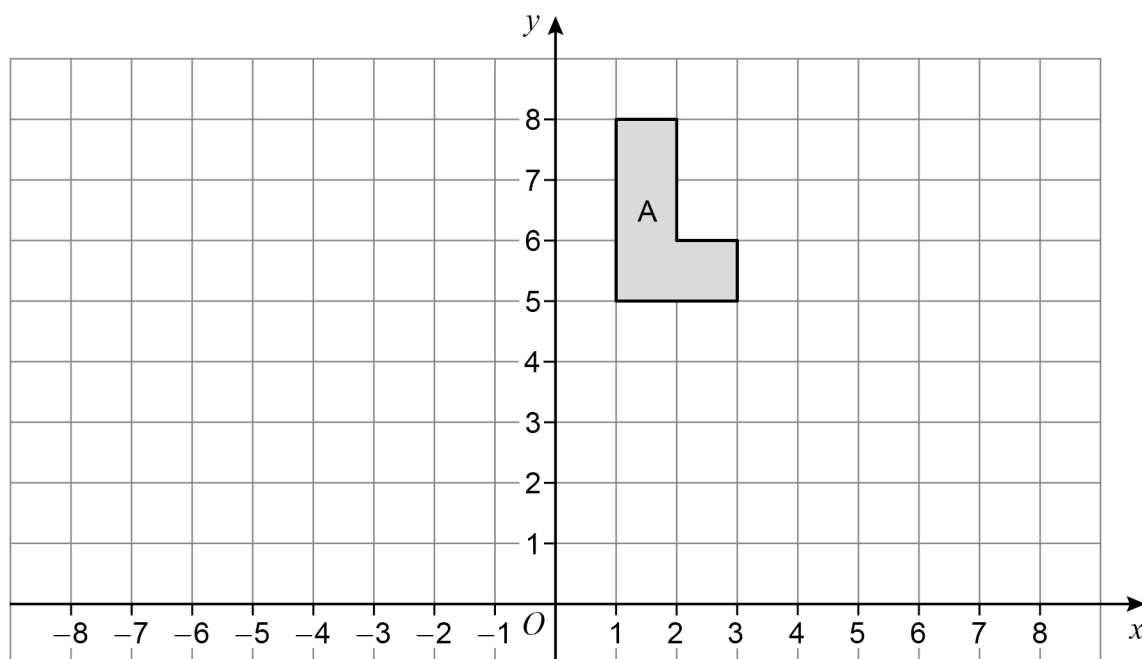
Answer _____ g



- 25** Calculate $9.62 \times 10^6 + 864\,000$
Give your answer in standard form.

[2 marks]

Answer _____

26

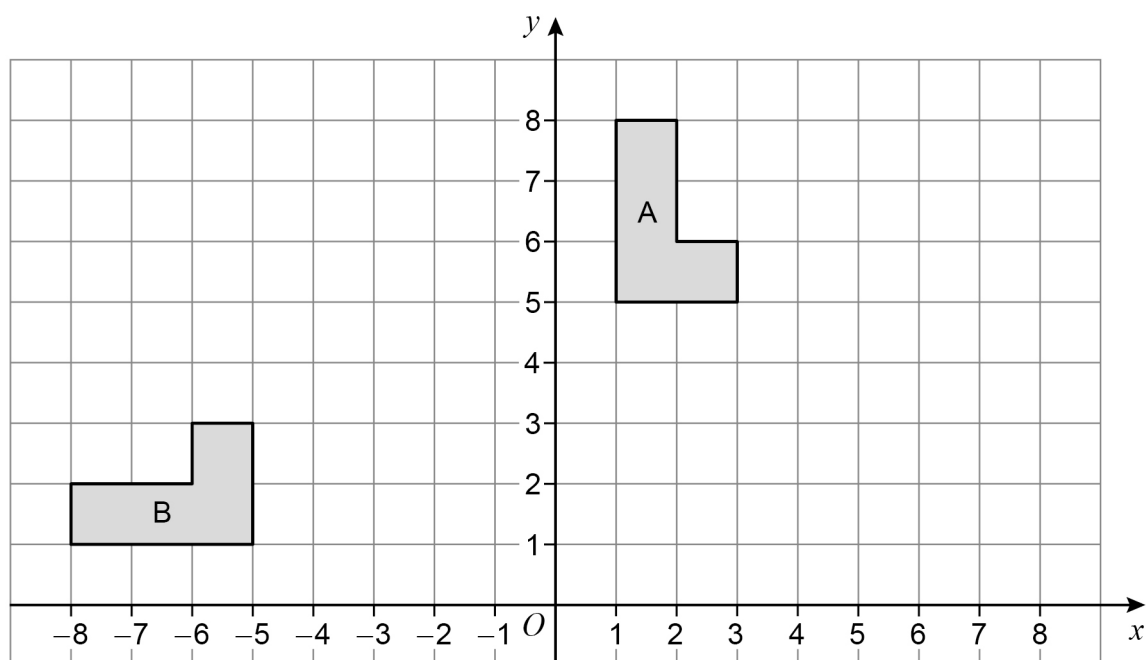
- 26 (a)** On the grid above, reflect shape A in the line $y = x$

[2 marks]

Question 26 continues on the next page



26 (b)



Describe fully the **single** transformation that maps shape A to shape B.

[3 marks]



27

Simplify $10(x + 3) - 2(3 - x)$ Give your answer in the form $a(x + b)$ where a and b are integers.**[3 marks]**

Answer _____

END OF QUESTIONS

There are no questions printed on this page

*Do not write
outside the
box*

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**



[illegible]

