

Cambridge Primary Checkpoint

CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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MATHEMATICS

0096/02

Paper 2

October 2024

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 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 [].

This document has **24** pages. Any blank pages are indicated.

- 1 Round 15.21 to the nearest tenth.

..... [1]

- 2 Draw a line to match each fraction to the correct division.

| | |
|----------------|-------------|
| | $11 \div 4$ |
| $\frac{3}{4}$ | $4 \div 3$ |
| | $3 \div 4$ |
| $1\frac{1}{4}$ | $5 \div 4$ |
| | $4 \div 5$ |

[1]

- 3 Mike rolls a fair 1 to 6 dice.

Here are two pairs of events.

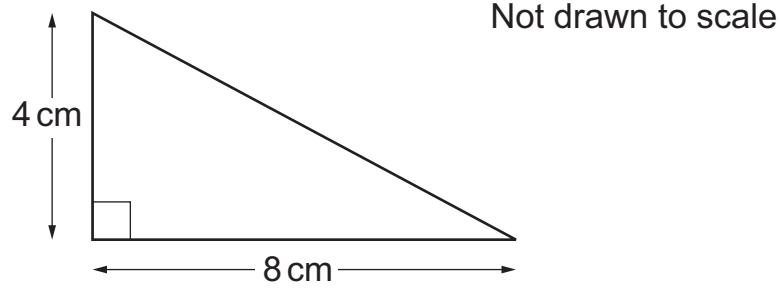
Mike rolls a 3 or Mike rolls an even number

Mike rolls a number less than 5 or Mike rolls a number greater than 5

Draw a ring around the most likely event in each pair.

[1]

- 4 Here is a right-angled triangle.

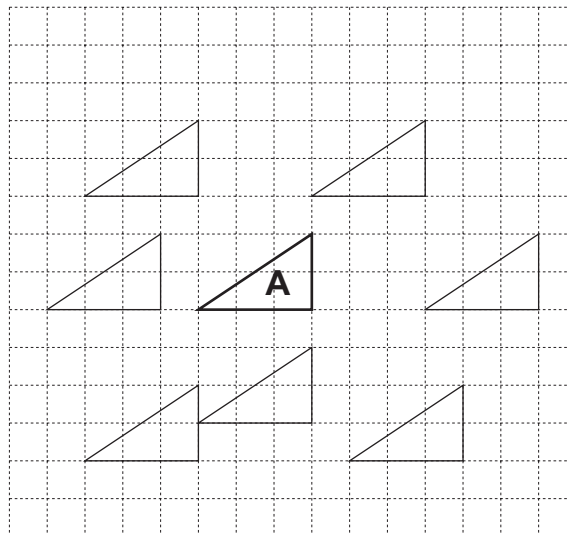


Calculate the area of the triangle.

..... cm^2 [1]

- 5 Here is a grid of squares.

Triangle A is translated horizontally on the grid.



Draw a ring around **all** the triangles which show possible new positions of triangle A.

[1]

- 6** Anastasia thinks of a number.

The number has

3 tens
2 ones
0 tenths
5 hundredths
1 thousandth

Write Anastasia's number.

..... [1]

- 7** Here are the heights of four children.

The heights are measured in centimetres.

134 140 142 144

- (a)** Calculate the range of the heights.

..... centimetres [1]

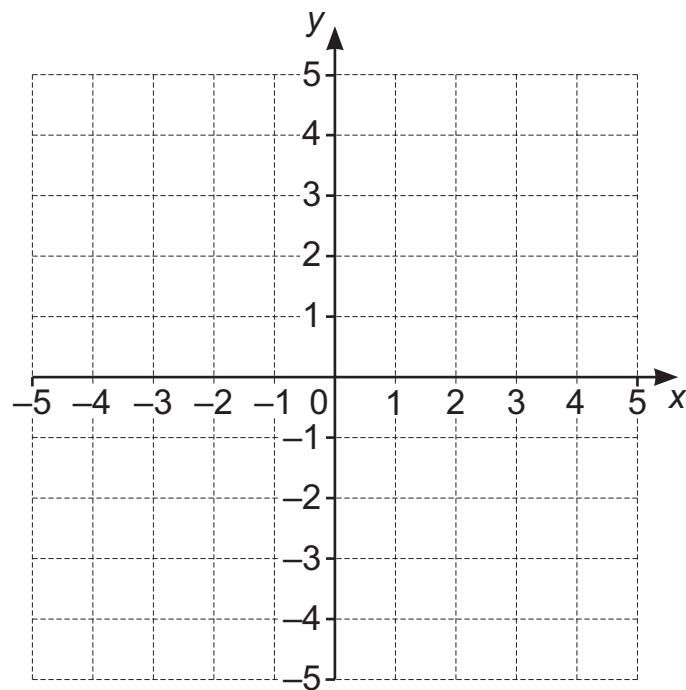
- (b)** Calculate the mean height.

..... centimetres [1]

- 8 Write **two** fractions with a total of $\frac{6}{7}$

..... and [1]

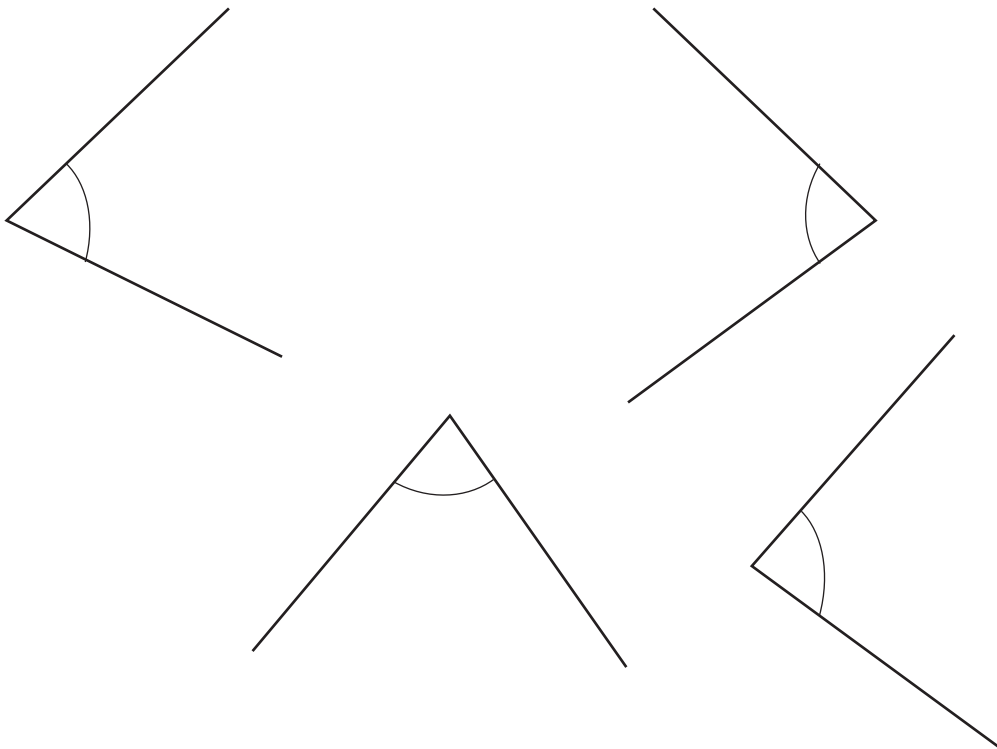
- 9 Here is a coordinate grid.



Plot the point $(-4, 3)$.

[1]

10 (a) Here are four angles.



Draw a ring around the angle that measures 75° .

[1]

(b) Draw an angle that measures 120° .
Label the angle.

[1]

11 Here are three symbols.

> < =

Write the correct symbol in each box.

You may use each symbol once, more than once or not at all.

$$\frac{3}{5} \quad \square \quad 30\%$$

$$60\% \quad \square \quad 0.07$$

$$0.15 \quad \square \quad \frac{1}{5}$$

[2]

12 Yuri calculates $6 + 4 \times 2$

Yuri says,



Yuri is **not** correct.
He has used an incorrect method.

Explain the correct **method**.

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

- 13** The temperature in Oslo is -4°C .
The temperature in Harbin is -14°C .

(a) Write the difference in temperature between Oslo and Harbin.

..... $^{\circ}\text{C}$ [1]

- (b)** The temperature in Helsinki is halfway between the temperatures in Oslo and Harbin.

Write the temperature in Helsinki.

..... $^{\circ}\text{C}$ [1]

- 14** Here is part of a number sequence.

The sequence continues in the same way.

| | | | | |
|--|---|------|-----|--|
| | 4 | 3.25 | 2.5 | |
|--|---|------|-----|--|

Write the correct numbers in the boxes to complete the sequence.

[1]

15 Safia and Hassan each grow a sunflower.

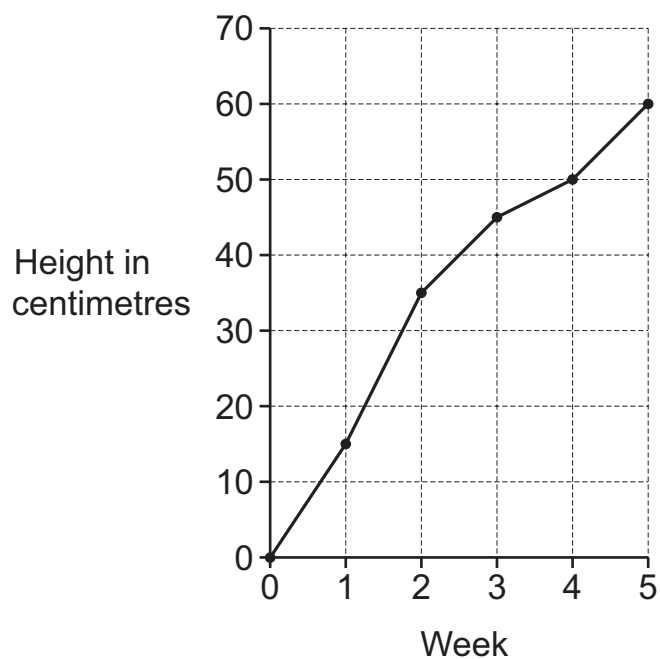
They measure the heights of their sunflowers at the beginning of each week.

(a) Here is Safia's data.

| Safia's sunflower | |
|-------------------|-----------------------|
| Week | Height in centimetres |
| 0 | 0 |
| 1 | 15 |
| 2 | 35 |
| 3 | 40 |
| 4 | 50 |
| 5 | 60 |

Safia plots her data in a line graph.

Height of Safia's sunflower



One of her points is incorrect.

Draw a ring around the incorrect point on her graph.

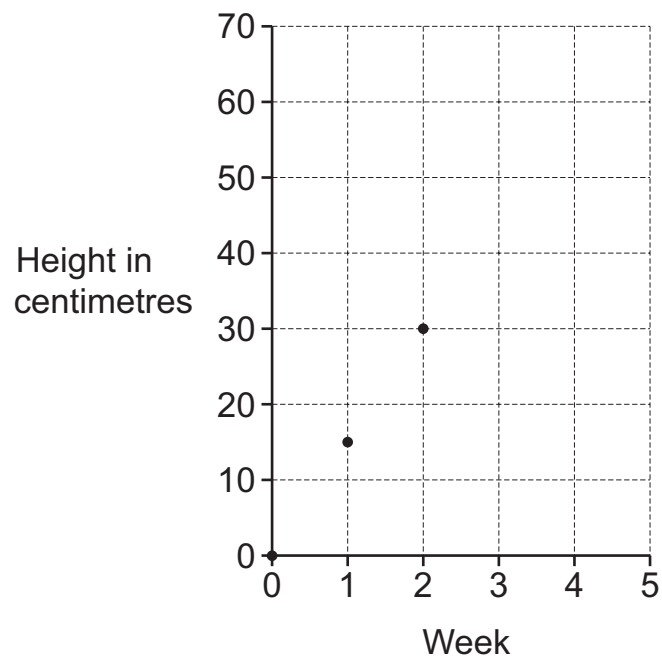
[1]

(b) Here is Hassan's data.

| Hassan's sunflower | |
|--------------------|-----------------------|
| Week | Height in centimetres |
| 0 | 0 |
| 1 | 15 |
| 2 | 30 |
| 3 | 40 |
| 4 | 60 |
| 5 | 70 |

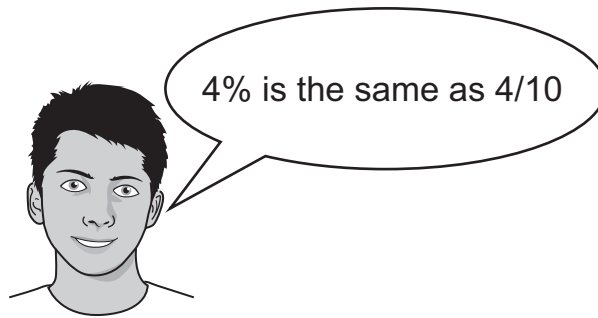
Complete the line graph for Hassan's sunflower.

Height of Hassan's sunflower



[1]

16 Ahmed says,



Tick (✓) to show if Ahmed is correct.

☐

Yes

☐

No

Explain how you know.

.....

..... [1]

17 Here are some statements about a circle.

| | True | False |
|--|------|-------|
| The circumference is longer than the radius. | | |
| The diameter is longer than the circumference. | | |
| The radius is twice as long as the diameter. | | |
| The diameter is longer than the radius. | | |
| The circumference is a straight line. | | |

Tick (✓) to show if the statements are true or false.

[2]

18 Gabriella has yellow sweets and red sweets.

1 in every 4 sweets is yellow.

She has 8 yellow sweets.

Calculate the number of red sweets Gabriella has.

..... [1]

19 (a) Write the **largest** number that is a factor of both 36 and 48

.....

[1]

(b) Write the **smallest** number that is a multiple of both 36 and 48

.....

[1]

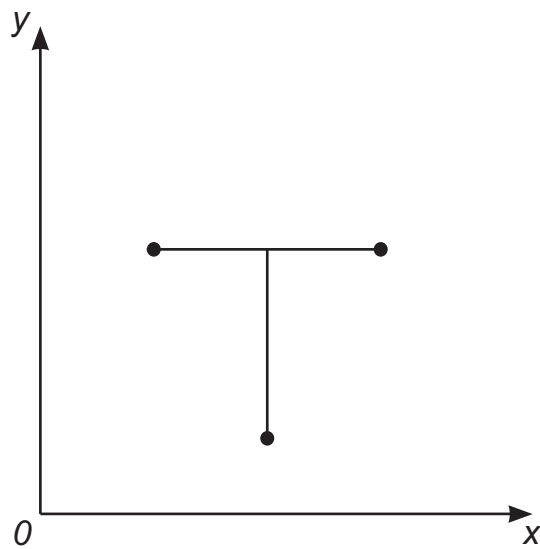
20 Tick (✓) **all** the expressions that are equivalent to 13.024

| | |
|------------------------------------|--|
| 13 ones + 24 thousandths | |
| 13 ones + 2 tenths + 4 thousandths | |
| $10 + 3 + 0.02 + 0.004$ | |

[1]

21 Naomi plots three points on a coordinate grid.

She joins the points to make the letter T.



Tick (✓) to show the set of Naomi's coordinates.

| | | | |
|-------|-------|-------|--|
| (3,7) | (6,2) | (9,7) | |
| (3,7) | (6,7) | (9,7) | |
| (3,7) | (6,9) | (9,7) | |
| (7,3) | (2,6) | (7,9) | |
| (7,3) | (7,6) | (7,9) | |
| (7,3) | (9,6) | (7,9) | |

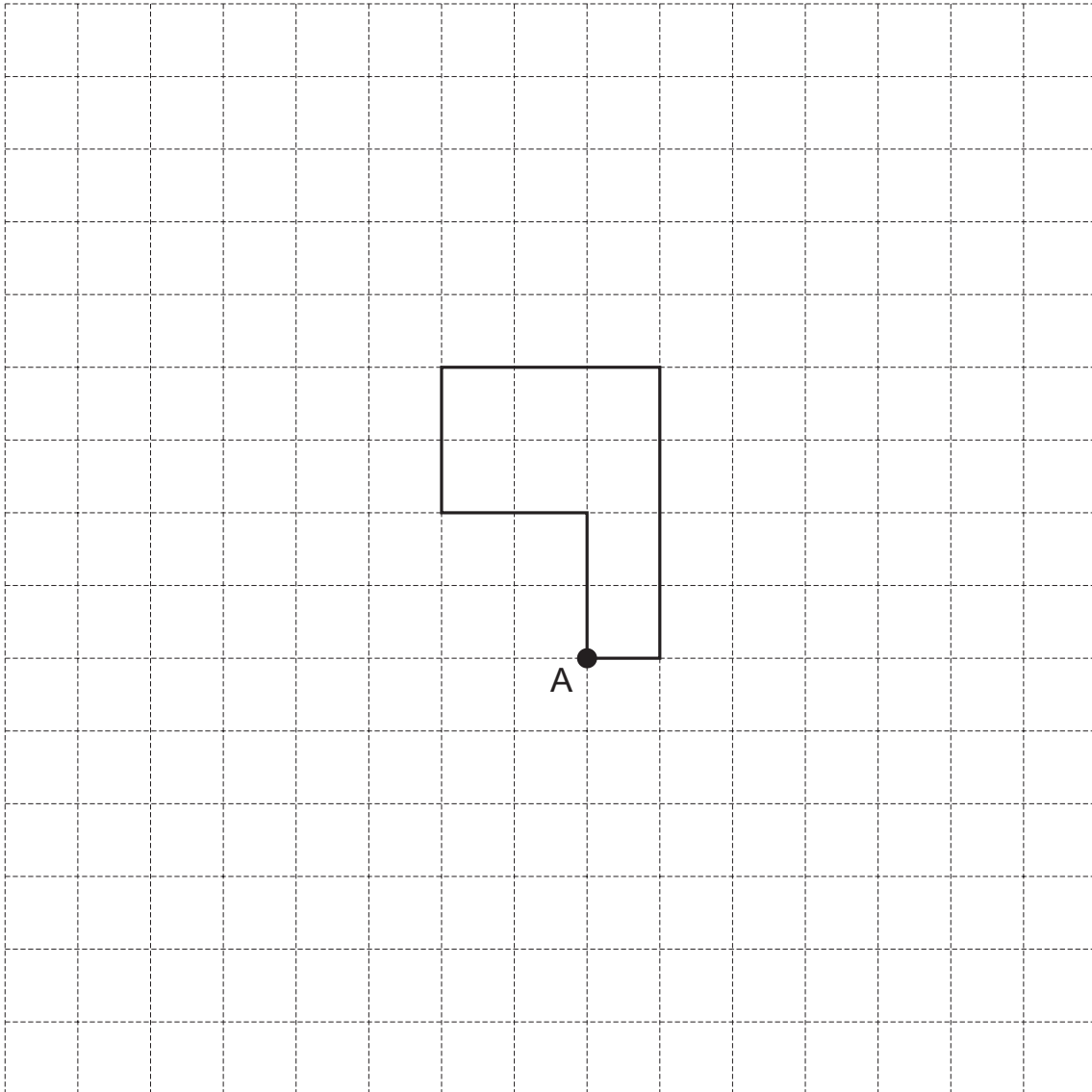
[1]

22 Draw **accurately** the set of points that are exactly 6 cm from point P.

• P

[1]

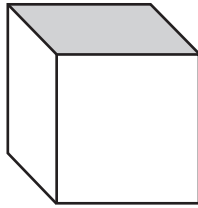
23 Here is a shape drawn on a grid of squares.



Rotate the shape 90° clockwise about the point A.

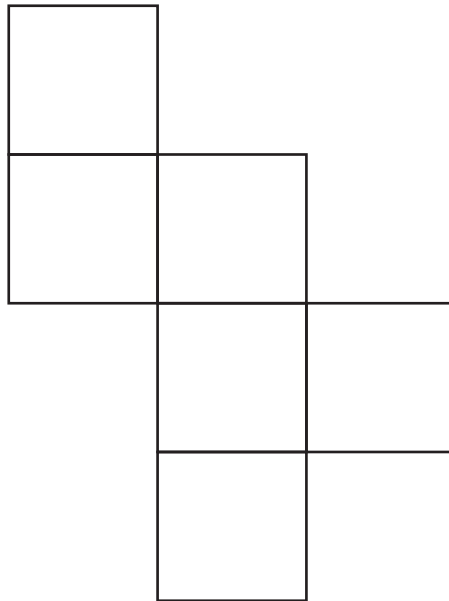
[1]

24 Here is a cube.



The top and bottom faces are grey.
The other faces are white.

Shade **two** faces to complete the net of this cube.



[1]

25 Oliver draws four different quadrilaterals.

Here are the names of his quadrilaterals.

kite

rectangle

rhombus

trapezium

Write each name **once** to complete the table.

| Description of Oliver's quadrilateral | Name of Oliver's quadrilateral |
|---|--------------------------------|
| exactly 4 right angles exactly 2 lines of symmetry | |
| exactly 1 right angle no parallel sides | |
| exactly 2 right angles diagonals are not equal lengths | |
| no right angles diagonals are not equal lengths | |

[2]

26 Carlos chooses two **different** numbers.

Each number has two digits.

Each number rounds to 4 when rounded to the nearest whole number.

Carlos adds his two numbers.

The total rounds to 9 when rounded to the nearest whole number.

Write **two** possible numbers that he chooses.

..... and [1]

27 Pierre has some \$1 notes **and** some \$2 notes.

The total value of the notes is \$50

g represents the number of \$1 notes Pierre has.

h represents the number of \$2 notes Pierre has.

(a) Write the value of **g** when **h** is 10

..... [1]

(b) Write the largest possible value of **h**.

..... [1]

28 Lily rolls two dice.

She looks at both numbers.

She calculates the difference between the two numbers.

She does this 100 times.

Here are the results.

| Differences | Frequency |
|-------------|-----------|
| 0 | 17 |
| 1 | 30 |
| 2 | 22 |
| 3 | 16 |
| 4 | 10 |
| 5 | 5 |

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

The probability of a difference of 5 is half the probability of a difference of

..... .

There is almost a 50% chance of getting a difference of
or less.

The probability of a difference of is about the same as the
probability of a difference of

[2]

29 Jamila writes the sequence of square numbers.

1 4 9 ...

She makes a **new** sequence by squaring each number in the sequence.

1 16 81 ...

Write the 7th term in her **new** sequence.

..... [1]

30 Mia has some 10 cent coins and some 50 cent coins in a jar.

She has a total of 20 coins.

For every two 10 cent coins she has three 50 cent coins.

Calculate the total amount of money in the jar.

..... cents [1]

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