



Please write clearly in block capitals.

Centre number

--	--	--	--	--

Candidate number

--	--	--	--

Surname

Forename(s)

Candidate signature

I declare this is my own work.

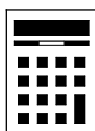
GCSE MATHEMATICS

F

Foundation Tier
Final Third

Paper 3 Calculator

November 2024



For Examiner's Use	
Pages	Mark
2–3	
4–5	
6–7	
8–9	
TOTAL	

Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from www.aqa.org.uk.

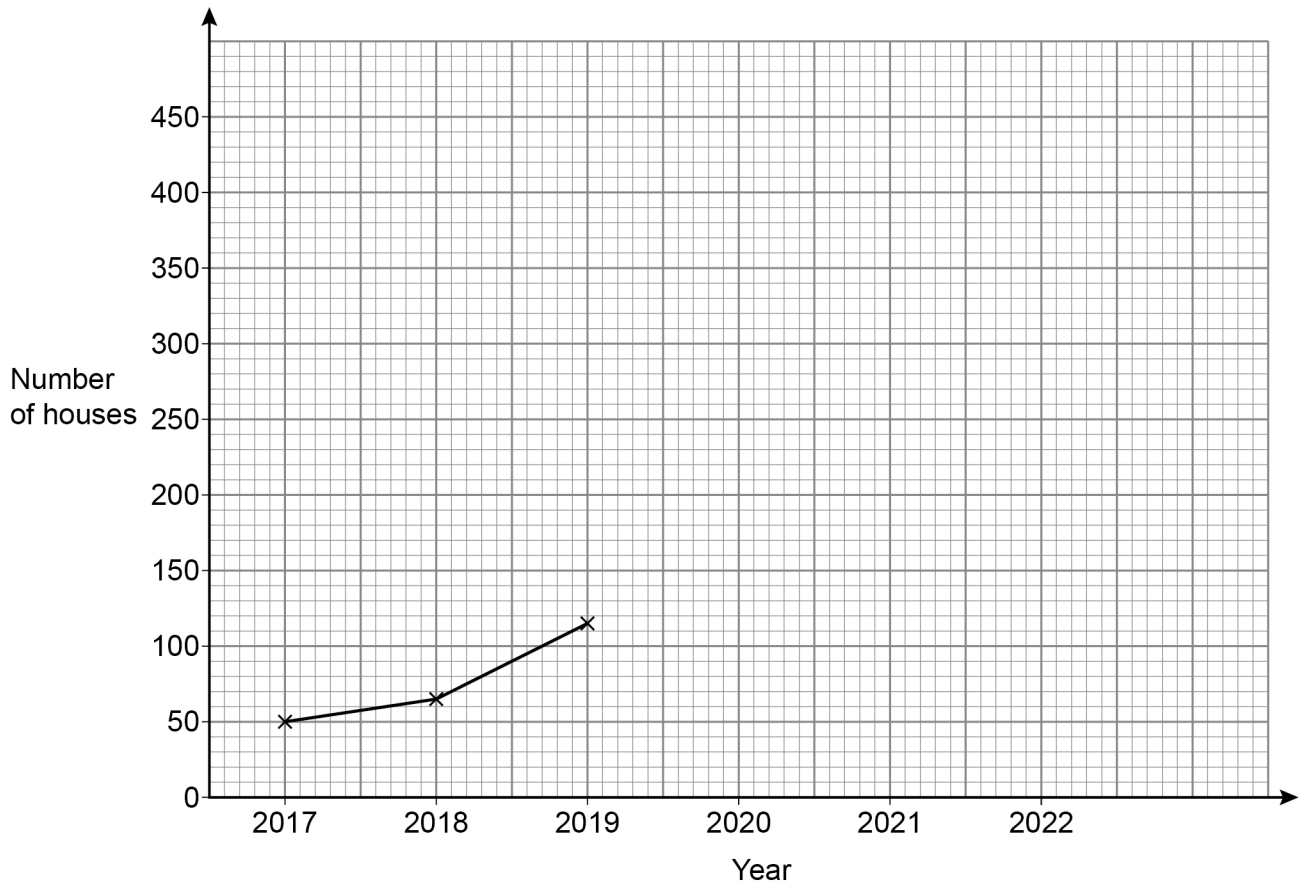
Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2024 AQA and its licensors. All rights reserved.

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

- 19** The table shows information about the number of houses with solar panels in a town.

Year	2017	2018	2019	2020	2021	2022
Number of houses	50	65	115	210	275	350



- 19 (a)** Complete the graph.

[2 marks]

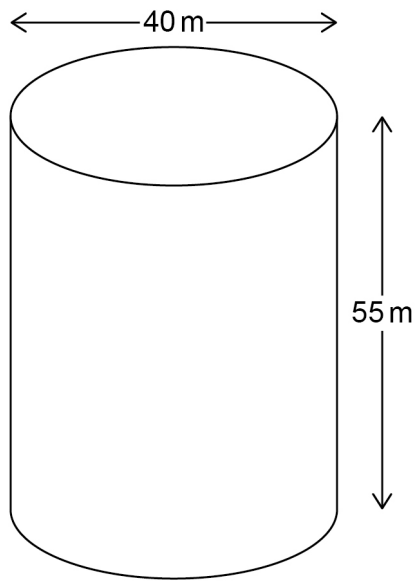
- 19 (b)** Use the graph to estimate the number of houses with solar panels in 2023

[1 mark]

Answer _____

20

A building in the shape of a cylinder has diameter 40 m and height 55 m



- 20 (a) On the centimetre grid, draw a **plan** of the building.
Use a scale of 1 cm to 10 m

[2 marks]



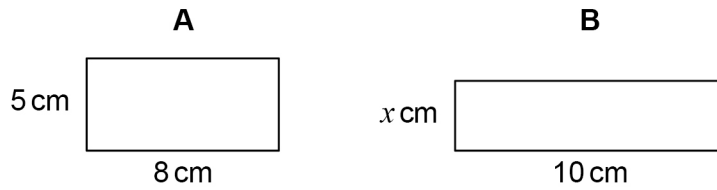
- 20 (b)** On this centimetre grid, draw the **front elevation** of the building.
Use a scale of 1 cm to 10 m

[2 marks]



Turn over for the next question

21

These two rectangles have the **same area**.Not drawn
accurately

Work out the ratio perimeter A : perimeter B

[4 marks]

Answer _____ : _____

22

To the **nearest pound**, Rosie has £12

She wants to buy 6 drinks.

Each drink costs £1.89

Show that Rosie **definitely** has enough money to buy the 6 drinks.

[3 marks]

23

The total cost of a taxi ride is calculated by adding

a fixed charge of £4

and

a charge of £2 per mile.

Write a formula to work out the total cost, £ C , of a journey of m miles.

[2 marks]

$$C = \underline{\hspace{10cm}}$$

Turn over for the next question

24 (a)

At a school

there are 912 students

the ratio of students to teachers is 15.2 : 1

The number of students stays the same.

The number of teachers increases by 2

Work out the new ratio of students to teachers.

Give your answer in the form $n : 1$ **[3 marks]**

Answer _____ : 1

24 (b)

On a school trip, one teacher is needed for every group of 10 or fewer students.

72 students want to go on the trip.

Lexi tries to work out how many teachers are needed.

$$72 \div 10 = 7.2$$

7 teachers are needed.

What is wrong with her answer?

[1 mark]

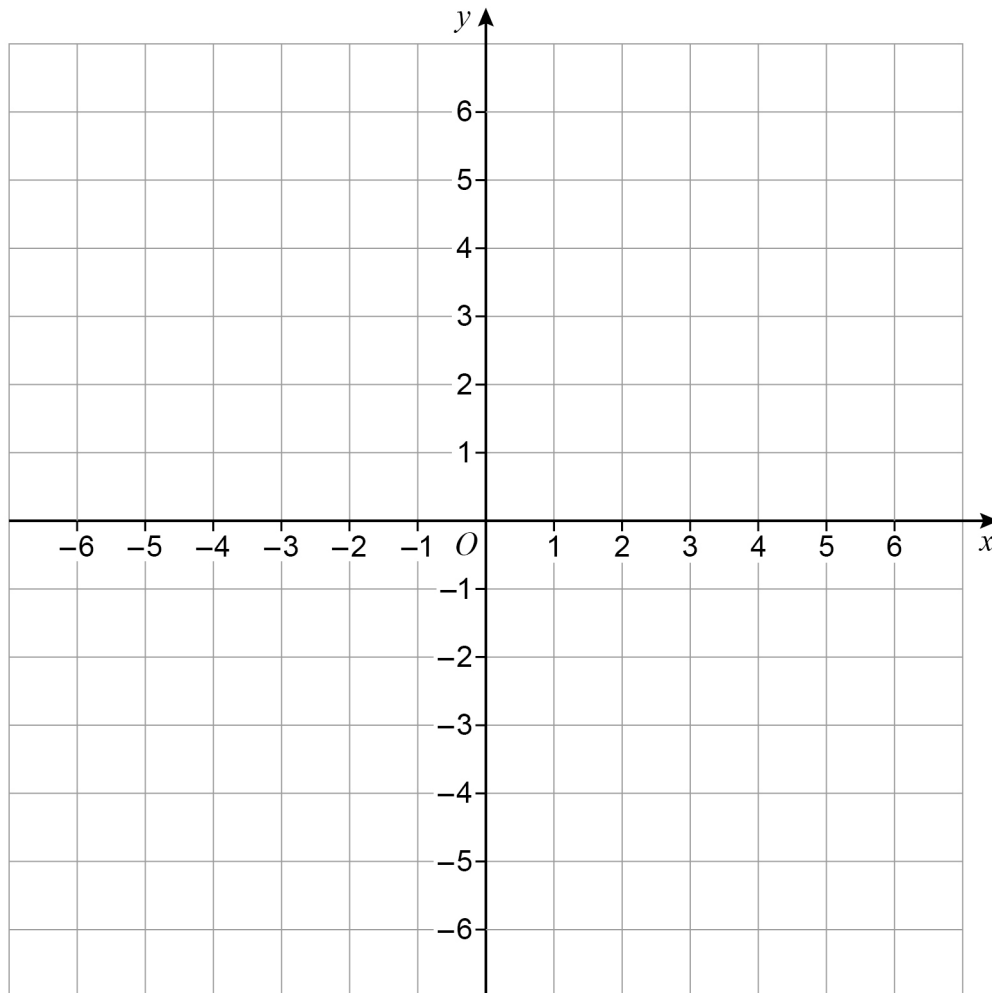
25

A triangle is drawn using the lines

$$y = x$$

$$x = -2$$

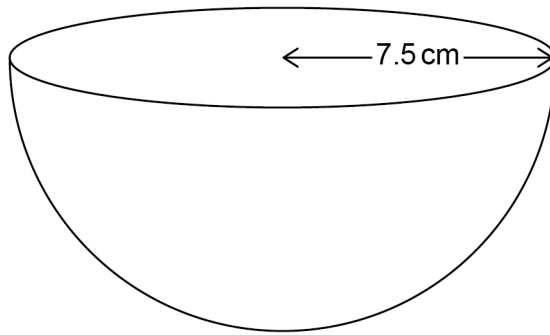
$$y = 4$$

Work out the coordinates of the **three** vertices of the triangle.**[4 marks]**

Answer (_____ , _____)

(_____ , _____)

(_____ , _____)



$$\text{Volume of a sphere} = \frac{4}{3} \times \pi \times r^3$$

where r is the radius

Ria works out the volume of this **hemisphere** in terms of π
Here is her work.

$$\text{Volume of a hemisphere} = \frac{4}{3} \times 7.5 \times 3 \div 2 = 15$$

Write down **two** mistakes she has made.

[2 marks]

Mistake 1 _____

Mistake 2 _____
