

Name

Class



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Area and Perimeter

(9 – 1) Topic booklet

HIGHER

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

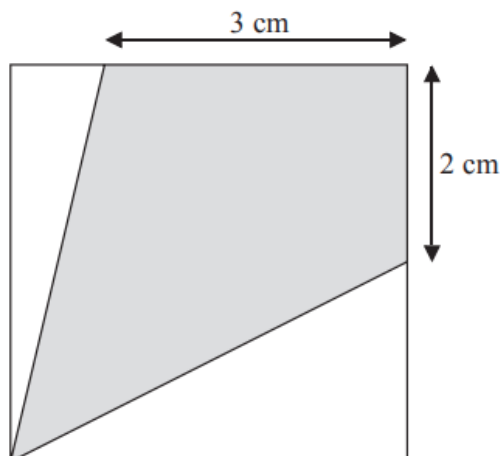
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

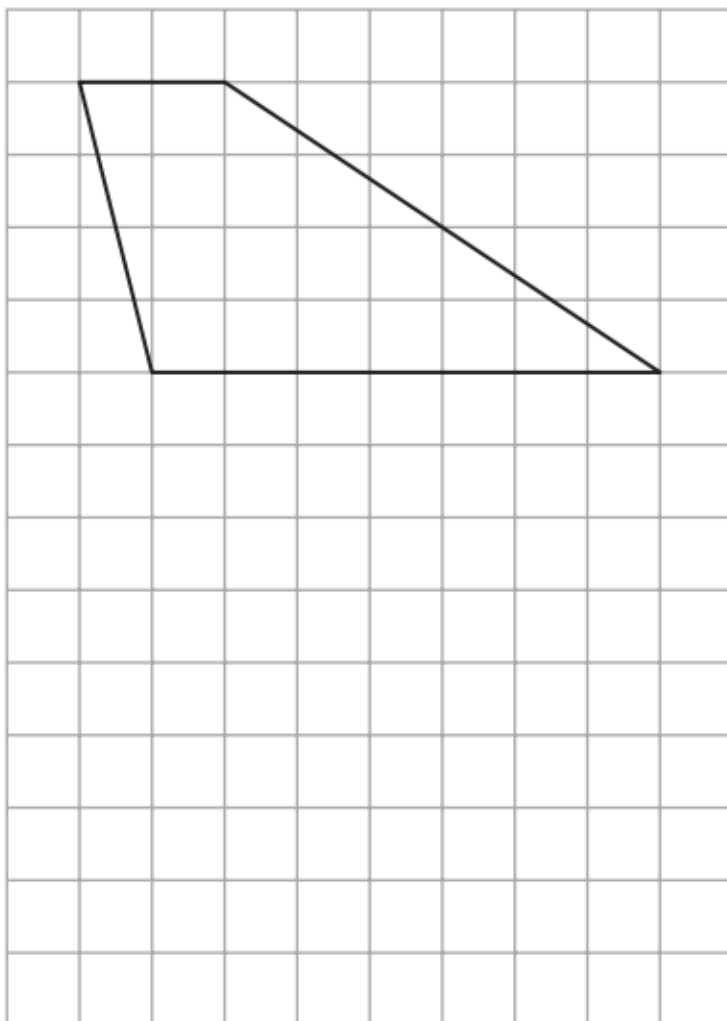
Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

- 2 The diagram shows a square with perimeter 16 cm.



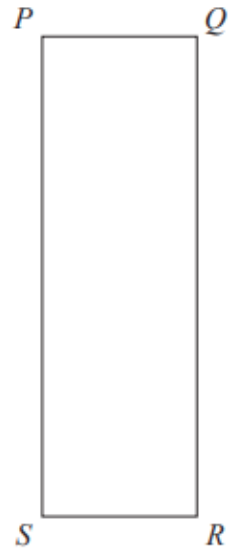
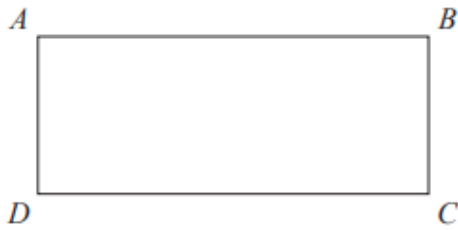
Work out the proportion of the area inside the square that is shaded.

3 Here is a trapezium drawn on a centimetre grid.



On the grid, draw a triangle equal in area to this trapezium.

7 Here are two rectangles.



$$QR = 10 \text{ cm}$$

$$BC = PQ$$

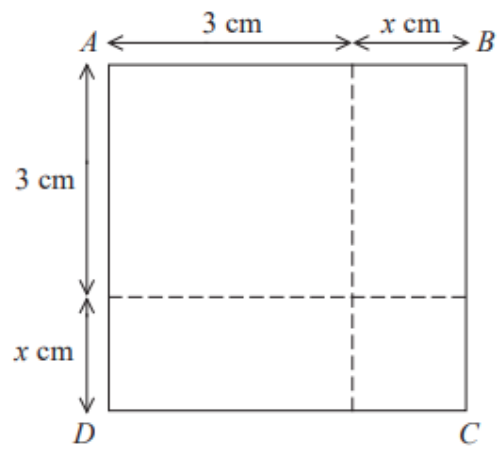
The perimeter of $ABCD$ is 26 cm

The area of $PQRS$ is 45 cm^2

Find the length of AB .

..... cm

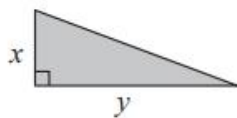
4



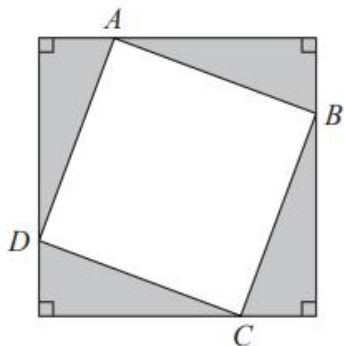
The area of square $ABCD$ is 10 cm^2 .

Show that $x^2 + 6x = 1$

7 Here is a right-angled triangle.



Four of these triangles are joined to enclose the square $ABCD$ as shown below.



Show that the area of the square $ABCD$ is $x^2 + y^2$