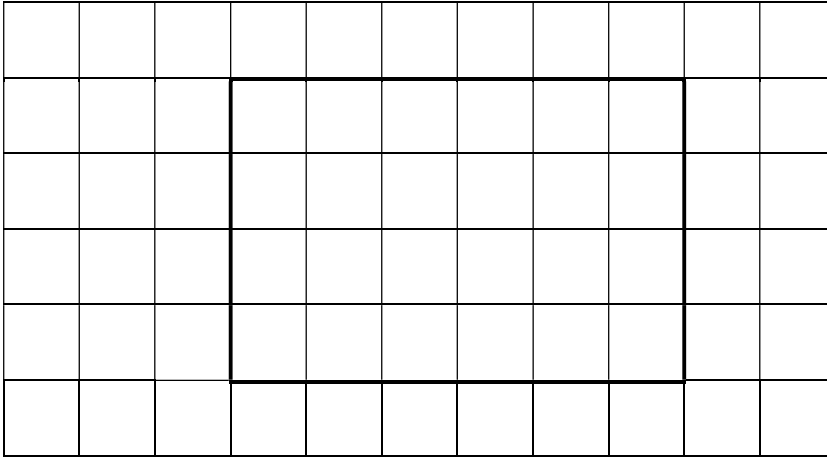


## Fill it up

### Instructions

- Work alone
- Follow the questions carefully. Read all instructions, including how to score marks.
- **ALL** the grids below are 1cm grids.
- All solutions are to be written on this paper.
- You may use your calculator.

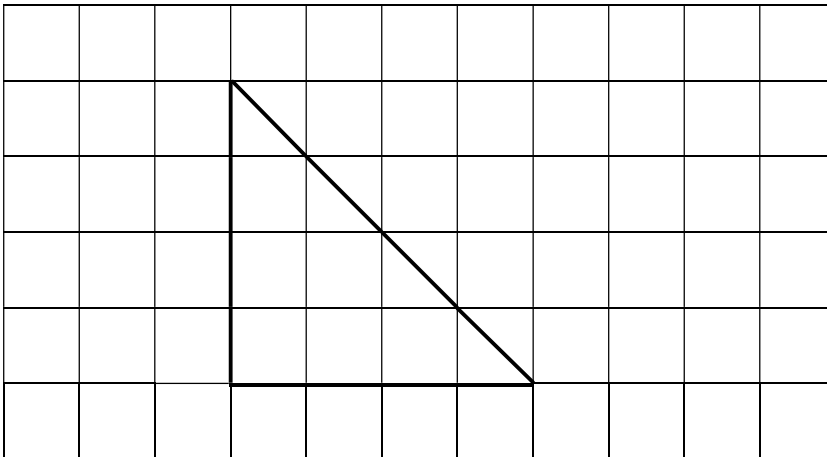
**1** Find the area of the rectangle drawn below. Write the answers neatly below.



Score the maximum of **2 marks** if you find the area giving the solution with correct units. If you make one mistake, **1 mark** and more than one mistake, **0 marks**.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

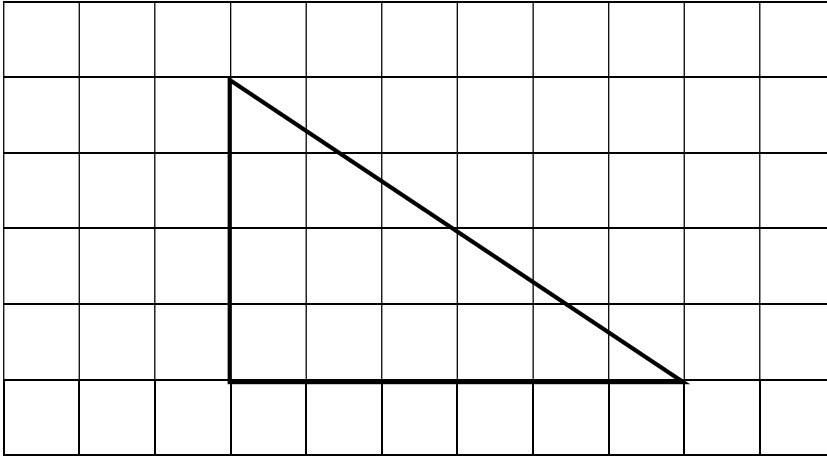
**2** Find the area of the triangle drawn below. Write the answers neatly below.



Score the maximum of **2 marks** if you complete the table with no errors. If you make one mistake, **1 mark** and more than one mistake, **0 marks**.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

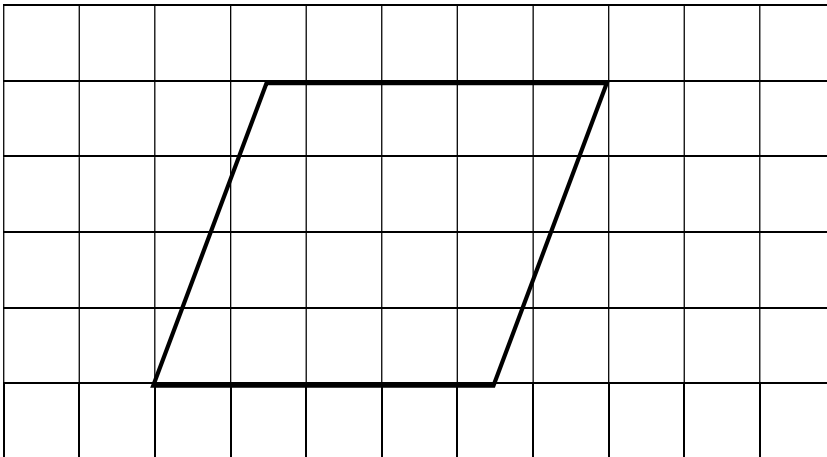
3 Find the area of the triangle drawn below. Write the answers neatly below.



Score the maximum of **2 marks** if you find the area giving the solution with correct units. If you make one mistake, **1 mark** and more than one mistake, **0 marks**.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

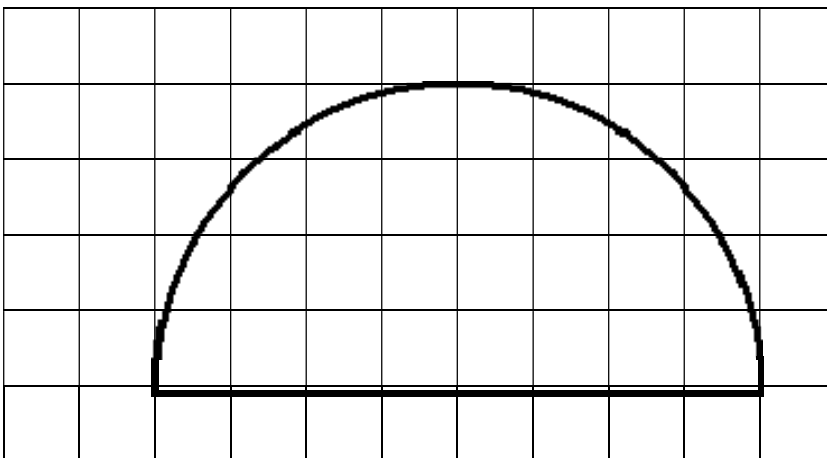
4 Find the area of the parallelogram drawn below. Write the answers neatly below.



Score the maximum of **2 marks** if you find the area giving the solution with correct units. If you make one mistake, **1 mark** and more than one mistake, **0 marks**.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

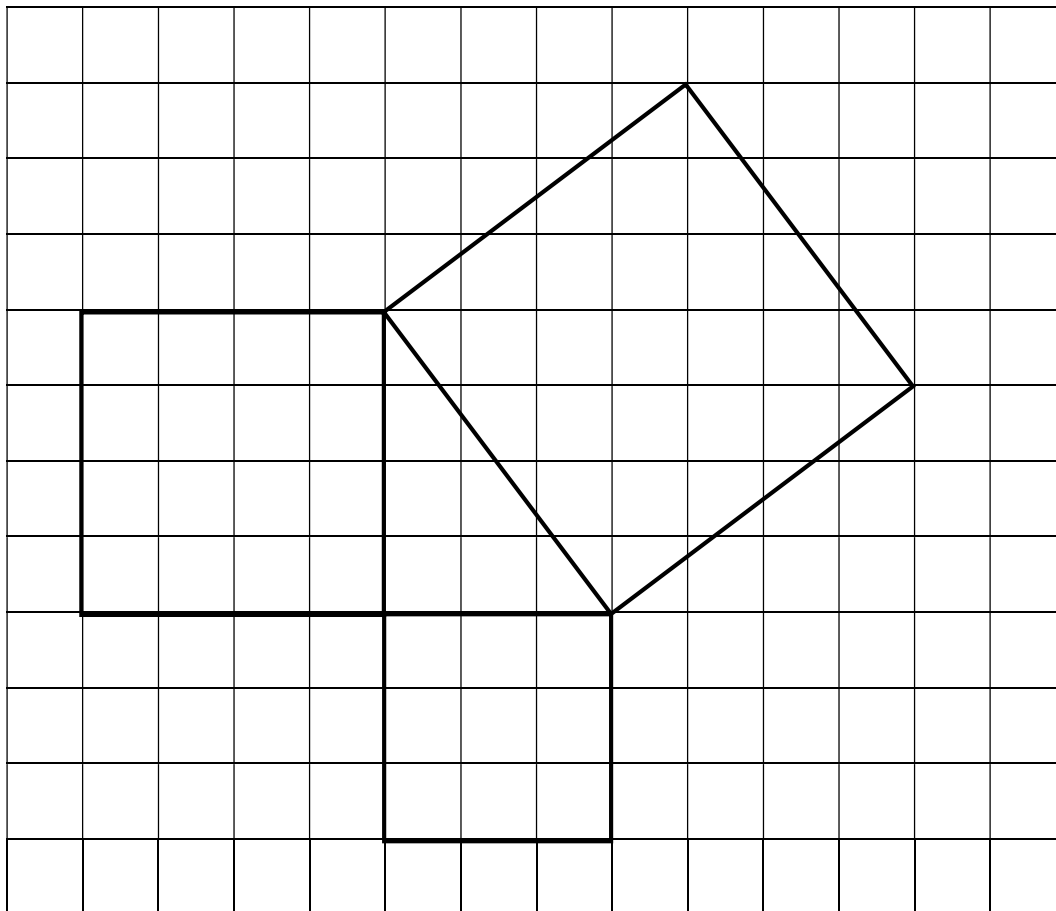
5 Find the area of the semi-circle drawn below. Write the answers neatly below.



Score the maximum of **2 marks** if you find the area giving the solution with correct units. If you make one mistake, **1 mark** and more than one mistake, **0 marks**.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

6 Find the area of the three squares drawn below. Write the answers neatly in the table below. Transfer your results to the second table. Is your equation (number sentence) correct, or almost correct? (Tick one)



**Measurement**

Score the maximum of **3 marks** if you find the area giving the solution with correct units. If you make one mistake, **2 marks**. If you make two one mistake, **1 mark** and more than two mistakes, **0 marks**.

**Equation**

Score the maximum of **1 mark** if you complete the equation with your measurements.

*While there are no marks for the working, it will help you to do the question and maximise your marks.*

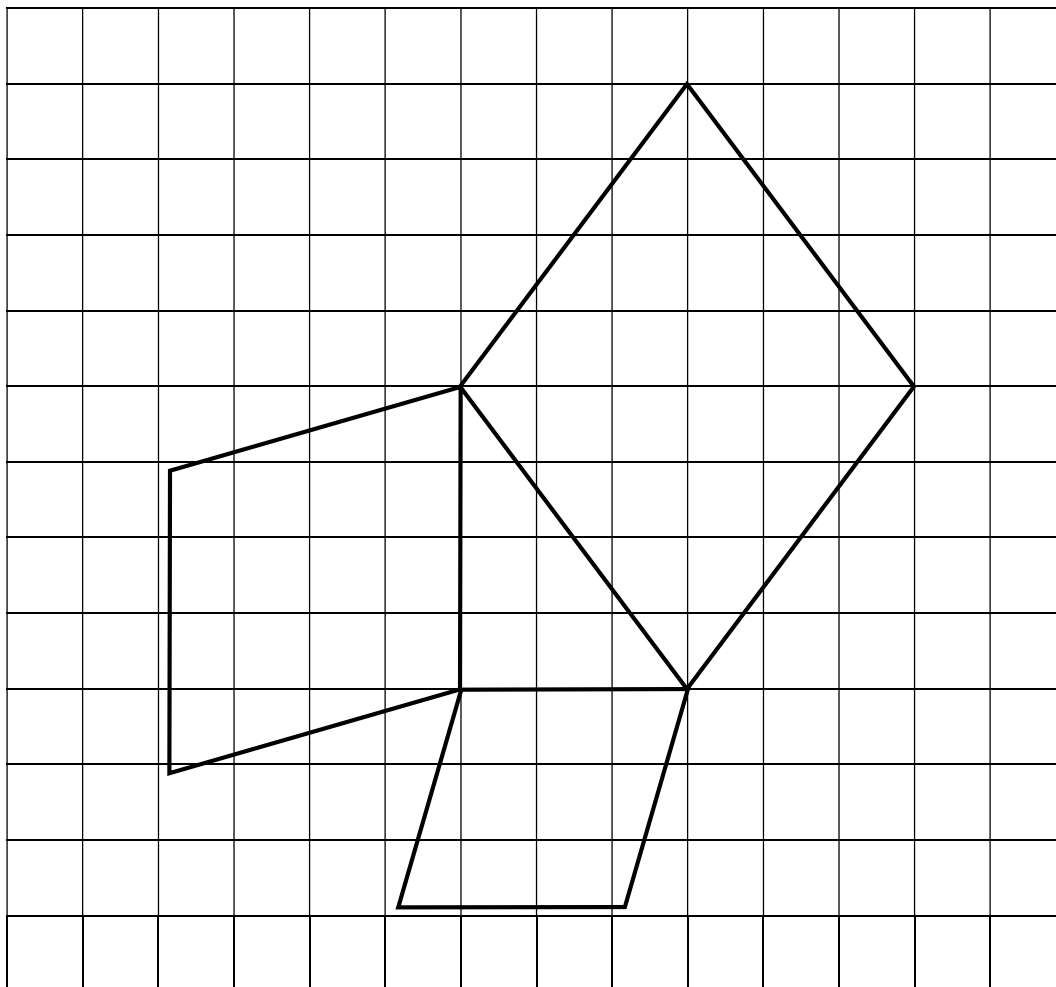
	Area
Small square	
Medium square	
Large square	

Area of Small square	+	Area of Medium square	=	Area of Large square
	+		=	

Correct		Almost correct	
---------	--	----------------	--

(Tick one only)

7 Find the area of the three rhombuses drawn below. (Remember, your answer will only be an estimate) Write the answers neatly in the table below. Transfer your results to the second table. Is your equation (number sentence) correct, or almost correct? (Tick one)



**Measurement**

Score the maximum of **3 marks** if you find the area giving the solution with correct units. If you make one mistake, **2 marks**. If you make two one mistake, **1 mark** and more than two mistakes, **0 marks**.

**Equation**

Score the maximum of **1 mark** if you complete the equation with your measurements.

*While there are no marks for the working, it will help you to do the question and maximise your marks*

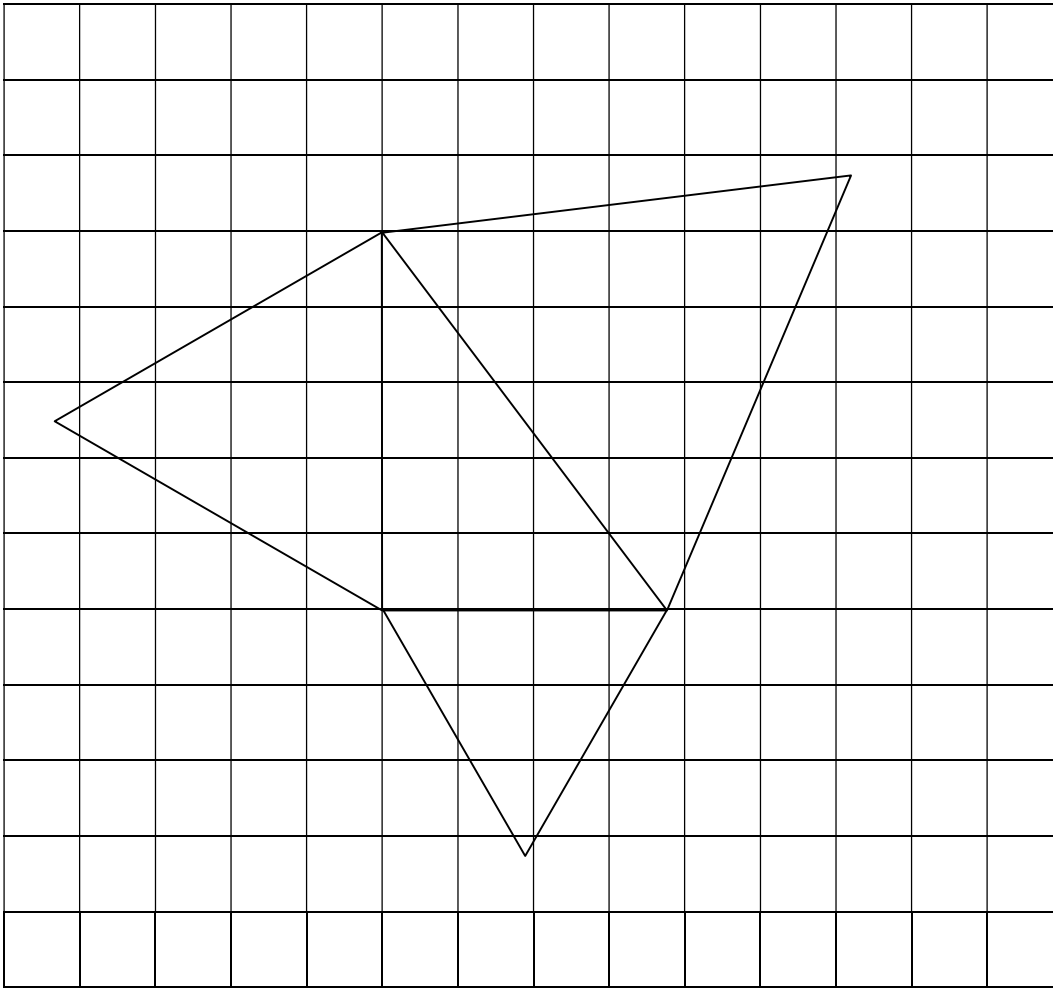
	Area
Small rhombus	
Medium rhombus	
Large rhombus	

Area of Small rhombus	+	Area of Medium rhombus	=	Area of Large rhombus
	+		=	

Correct		Almost correct (out by less than 1)	
---------	--	--	--

(Tick one only)

8 Find the area of the three equilateral triangles drawn below. (Remember, your answer will only be an estimate) Write the answers neatly in the table below. Transfer your results to the second table. Is your equation (number sentence) correct, or almost correct? (Tick one)



**Measurement**

Score the maximum of **3 marks** if you find the area giving the solution with correct units. If you make one mistake, **2 marks**. If you make two one mistake, **1 mark** and more than two mistakes, **0 marks**.

**Equation**

Score the maximum of **1 mark** if you complete the equation with your measurements.

*While there are no marks for the working, it will help you to do the question and maximise your marks*

	Area
Small triangle	
Medium triangle	
Large triangle	

Area of Small triangle	+	Area of Medium triangle	=	Area of Large triangle
	+		=	

Correct	<input type="checkbox"/>	Almost correct (out by less than 1)	<input type="checkbox"/>
---------	--------------------------	--	--------------------------

(Tick one only)

<p>9 Pythagoras' Rule states that "the square upon the hypotenuse is equal to the sum of the squares upon the other two sides". Remembering this rule works for squares, record your observations by completing the following questions.</p>	
<p>a) In question 6, you were verifying that Pythagoras' Rule works for the area of squares. Your solution should have shown that</p> $9 + 16 = 25$ <p style="text-align: center;">i.e. <math>3^2 + 4^2 = 5^2</math></p> <p>Did you get 25 cm<sup>2</sup> for the area of the large square? <b>YES/NO</b> (Cross one out)</p> <p>Why was it hard to find the area of the large square?</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>You will score the maximum of <b>2 marks</b> for each part if you explain your answer clearly and correctly. You will score <b>1 mark</b> for each part if you explain your answer in terms of your data. Incorrect or no answer scores <b>0 marks</b>.</p> <p><i>These answer should be written as full sentences.</i></p>
<p>b) In question 7, you were testing if Pythagoras' Rule works for the area of rhombuses. Remember that your answers were estimates and the results may only have been nearly correct, i.e. <b>out by less than 1</b>.</p> <p>Did Pythagoras' Rule work for the area of rhombuses? <b>YES/NO</b></p> <p>Briefly explain your answer.</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>c) In question 8, you were testing if Pythagoras' Rule works for the area of equilateral triangles. Remember that your answers were estimates and the results may only have been nearly correct, i.e. <b>out by less than 1</b>.</p> <p>Did Pythagoras' Rule work for the area of equilateral triangles? <b>YES/NO</b></p> <p>Briefly explain your answer.</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>d) Squares, rhombuses and equilateral triangles all have equal sides. They are called 'regular shapes'.</p> <p>Does Pythagoras' Rule work for the area of all 'regular shapes'? <b>YES/NO</b></p> <p>Briefly explain your answer.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	