

Name: \_\_\_\_\_ Maths Group: \_\_\_\_\_ Tutor Set: \_\_\_\_\_

# Homework Booklet

## KS3 Levels 3-8

### Unit 2 – Area and Perimeter

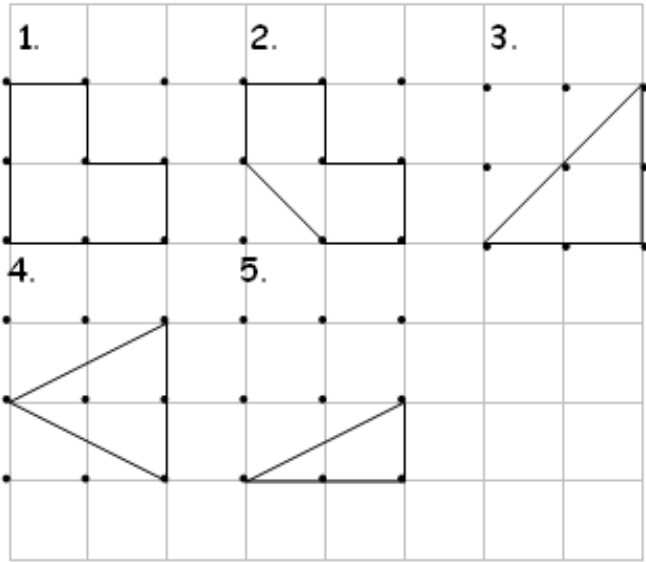
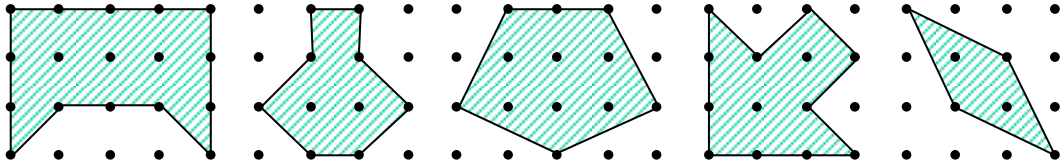

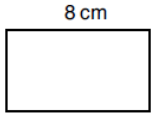
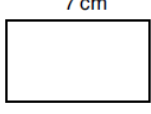


**Remember to use the back of a page if you need more working out space.**

Complete this table indicating the homework you have been set and when it is due by.

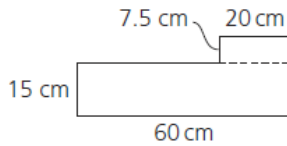
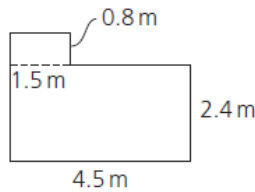
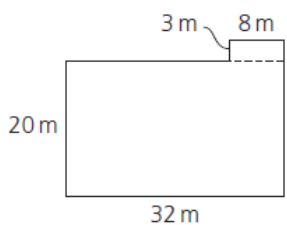
Date	Homework	Due By

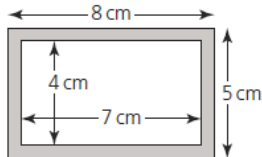
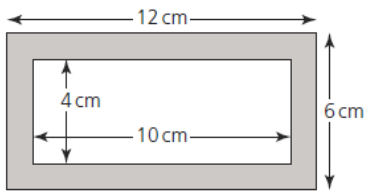
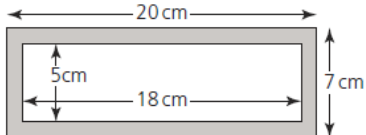
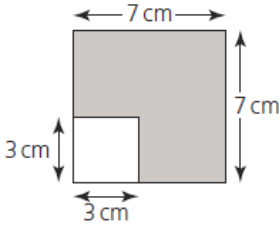
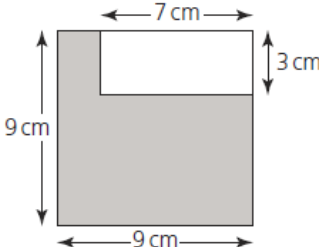
Please take care of the booklet as you will be required to make a donation to replace it if lost or damaged beyond use.

**U2 – Area & Perimeter**  
**Introducing Area and Perimeter**  
**\*\* No Calculator Allowed \*\***

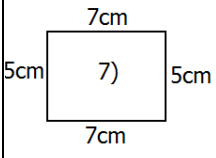
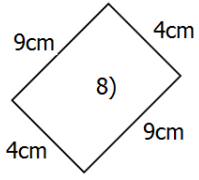
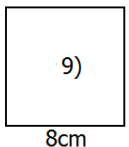
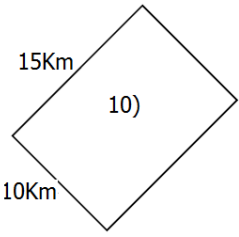
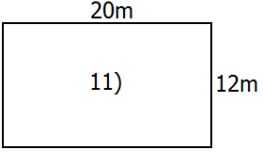
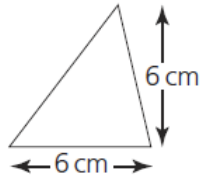
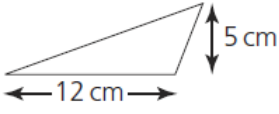
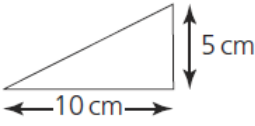
<p><b>Section A – work out the area.</b></p>  <div style="border: 1px solid black; padding: 10px; width: fit-content; margin-left: auto; margin-right: auto;"> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> </div>	<p>Level 3</p>
<p><b>Section B – work out the area.</b></p>  <p>1. _____      2. _____      3. _____      4. _____      5. _____</p>	<p>Level 5</p>
<p><b>Section C</b>          Find the areas and perimeter of these shapes</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>1). </p> <p>A= _____</p> <p>P= _____</p> </div> <div style="text-align: center;"> <p>2). </p> <p>A= _____</p> <p>P= _____</p> </div> <div style="text-align: center;"> <p>3). </p> <p>A= _____</p> <p>P= _____</p> </div> <div style="text-align: center;"> <p>4). </p> <p>A= _____</p> <p>P= _____</p> </div> <div style="text-align: center;"> <p>5). </p> <p>A= _____</p> <p>P= _____</p> </div> </div>	<p>Level 5</p>

**U2 – Area & Perimeter**  
**Shapes made from Rectangles**  
**\*\* No Calculator Allowed \*\***

<p>1. Find the area and Perimeter for each of the following shapes</p> <p><b>a</b></p>  <p><b>b</b></p>  <p><b>c</b></p> 	<p>Level 4</p>
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<p>2. Find the area of the shaded part of each diagram</p> <p><b>a</b></p>  <p><b>b</b></p>  <p><b>c</b></p>  <p><b>d</b></p>  <p><b>e</b></p> 	<p>Level 5</p>
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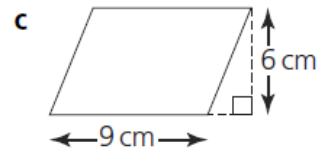
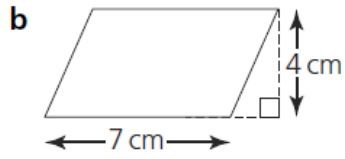
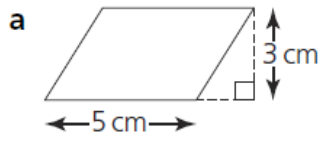
**U2 – Area and Perimeter**  
**Area of Triangle, Parallelogram and Trapezium**  
**\*\* No Calculator Allowed \*\***

<p>Find the area of the following rectangles (don't forget your units).</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>7)</p> </div> <div style="text-align: center;">  <p>8)</p> </div> <div style="text-align: center;">  <p>9)</p> </div> <div style="text-align: center;">  <p>10)</p> </div> <div style="text-align: center;">  <p>11)</p> </div> </div>	<p>Level 4</p>
<p>Find the area of each of the following triangles (don't forget your units).</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;"> <p><b>d</b></p>  </div> <div style="text-align: center;"> <p><b>e</b></p>  </div> <div style="text-align: center;"> <p><b>f</b></p>  </div> </div>	<p>Level 5</p>

Turn to the next page for more questions ...

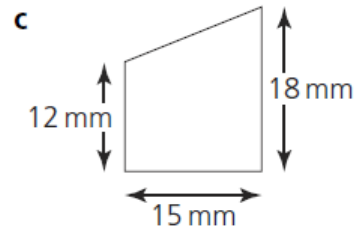
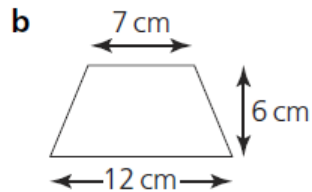
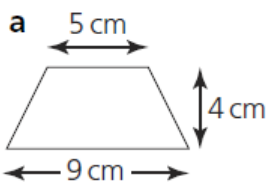
Level 5

Find the area of each of the following parallelograms (don't forget your units).



Find the area of each of the following trapezium (don't forget your units).

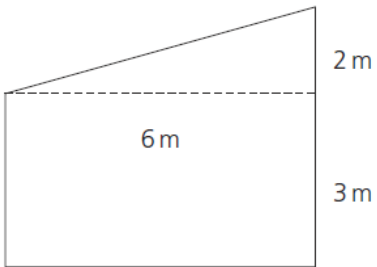
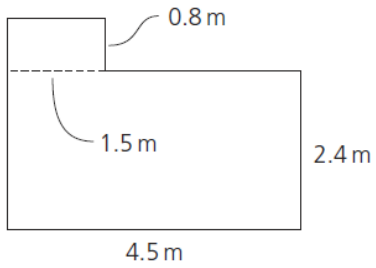
Level 5



**U2 – Area and Perimeter**  
**Area of Compound Shapes**  
**Calculator Allowed**

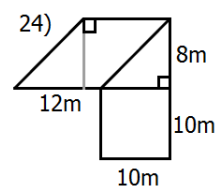
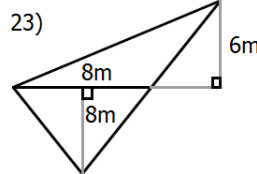
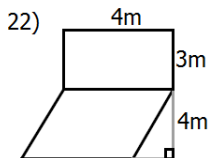
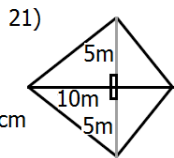
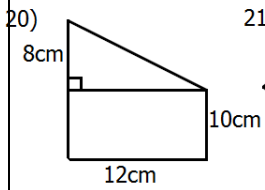
Find the area of the following compound shapes (don't forget your units).

Level 4-5



The following shapes have not been drawn to scale.  
 Find the **area** of each shape. (don't forget your units)

Level 5-6

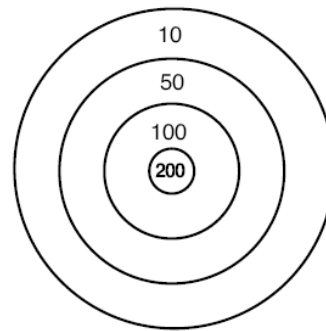


**U2 – Area and Perimeter**  
**Circles**  
**Calculator Allowed**

<p>1) Calculate the circumference of a circle with</p> <ul style="list-style-type: none"><li>a) Diameter 5cm</li><li>b) Diameter 8cm</li><li>c) Radius 3cm</li><li>d) Radius 2.5cm</li><li>e) Diameter 2.7cm</li></ul> <p>2) Calculate the area of a circle with</p> <ul style="list-style-type: none"><li>a) Radius 4cm</li><li>b) Radius 5cm</li><li>c) Diameter 9cm</li><li>d) Diameter 8.4cm</li><li>e) Radius 1.2cm</li></ul>	Level 6
<p>3) Paul goes for a short cycle ride. Each wheel on his bike has a radius of 27cm. His distance counter tells him the wheel has rotated 650 times. Find how far he has travelled in metres.</p>	Level 7

Turn to the next page for more questions ...

- 4) This is the target used in archery competitions. It is made up of four regions. Scores for hitting a region are shown.



Level 7

- a) The region worth 200 points has a radius of 15cm  
Calculate the area of this region.

The radius increases by 15cm for each ring. Hence the Outer rim of 100 points is 30cm away from the centre.

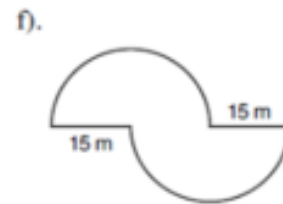
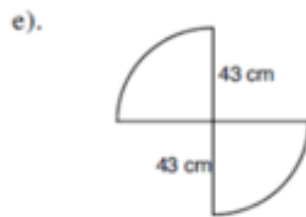
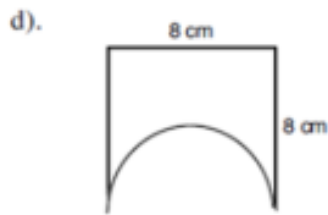
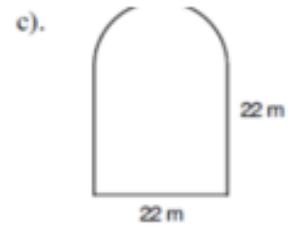
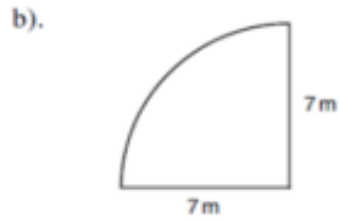
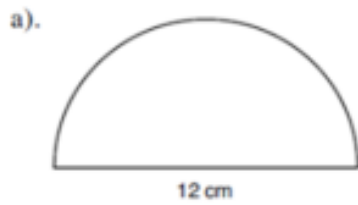
- b) Find the area of the 100 points region.



**U2 – Area and Perimeter**  
**Circles**  
**Calculator Allowed**

1. Calculate the area of the following:

Level 6-7



**U2 – Area and Perimeter**  
**Circles – Arcs and Sectors**  
**Calculator Allowed**

2. Calculate the area and circumference

Level 8

