

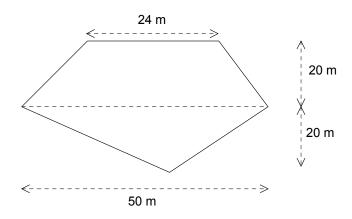
## GCSE Area and Volume 2: Assessment B

Your Name:	Tutor Group:

End of GCSE target grade: ...... Assessment grade: .......

Grade D objectives	©	<b>(2)</b>	8
• I can find the area of a triangle and of shapes made from rectangles and triangles.			
• I can use the formulae for the area and circumference of a circle.			
• I can find the area of a trapezium and the area of a parallelogram.			

1. Work out the area of the shape shown below. It is formed from a trapezium and a triangle.



Area = .....
$$m^2$$
 [4]

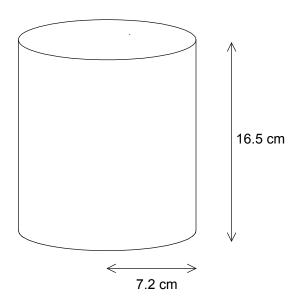
2. A circular plate has a circumference of 72 cm. Calculate the diameter of the plate.

Grade C objectives	©	<u>:</u>	8
• I can solve problems involving area and circumference of circles.			
• I can find the volume of a prism (including cylinders).			
• I can change between cm <sup>2</sup> and m <sup>2</sup> and between cm <sup>3</sup> and m <sup>3</sup> .			

3. Change 240000 cm<sup>3</sup> into m<sup>3</sup>.

$$240000 \text{ cm}^3 = \dots \text{m}^3$$
 [2]

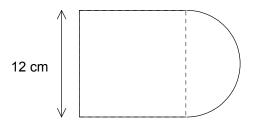
4. A cylinder has radius 7.2 cm and height 16.5 cm. Find the volume of the cylinder. Give your answer correct to **3 significant figures**.



Volume = 
$$\dots$$
 cm<sup>3</sup>

5. The diagram below is formed from a semi-circle and a square. Find the area of the entire shape.

Give your answer correct to 3 significant figures.



Area = .....[4]

Grade B objectives	$\odot$	<b>(</b>	8
• I can solve problems involving area, volume or surface area.			
• I can use dimensions to identify whether a formula represents an area, volume or length.			

6. In the following formulae *a*, *b* and *c* represent lengths. For each formula state whether it could represent a length, an area, a volume or none of these.

a)  $2\pi a$ 

.....

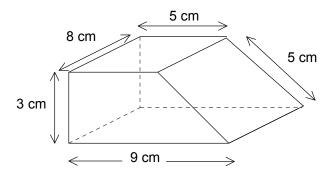
b)  $\frac{\pi a^2 b}{c}$ 

.....

c) 3ab + 2abc

.....[3]

7. A prism has a cross-section in the shape of a trapezium. Calculate the surface area of the prism.



Surface area = 
$$\dots$$
 cm<sup>2</sup> [4]

## **Teacher feedback:**

In order to get to the next grade (or in order to improve the quality of your work) you should...

The following aspect of your work was particularly good ...