

The Circle

**** You need a calculator for this worksheet.**

Remember :

$$A = \pi r^2 \quad (\pi = 3.14)$$

The Area of a Circle

The Area of a circle is the amount of flat space inside the circle

Example 1 Calculate the area of the circle with radius 7cm.

working $A = \pi r^2$
 $= 3.14 \times 7^2$
 $= 153.9 \text{ cm}^2 \quad (\text{to } 1 \text{ d.p.})$

Example 2 Calculate the area of the circle with diameter 6mm.

working If $d = 6$ then $r = 3$
 $A = \pi r^2$
 $= 3.14 \times 3^2$
 $= 28.3 \text{ mm}^2 \quad (\text{to } 1 \text{ d.p.})$

1. Calculate the area of the circle with

- (a) radius 18 cm (b) radius 31 mm (c) radius 1.5 m (d) radius 9 cm

2. Calculate the area of the circle with

- (a) diameter 10 cm (b) diameter 28 mm (c) diameter 1.4 m (d) $d = 16 \text{ cm}$