$$\therefore \frac{l}{\theta} = \frac{\pi d}{360} = \frac{2\pi r}{360} = \frac{\pi r}{180}$$
$$l = \frac{\pi d\theta}{360} = \frac{\pi r\theta}{180}$$

Area of a Sector:



Examples:

1. Find the area of the circle with diameter of 6 cm. Take π = 3.142. (Answer = 28.3 cm²)

2.

- ii) Find the circumference of the circle with (Take π = 3.142)
- a) Diameter= 8cm
- b) Radius=4cm
- 3. Find the area of the sector of a circle with radius of 2 cm and an angle of 60° . (Take $\pi = 3.142$)
- 4. Find the length of the arc on a circle with radius of 8cm and forms an angle of 80[®] at the centre of the circle.