

Radians



i. Convert the following degrees into radians:

- 90°
- 60°
- 120°
- 160°
- 30°
- 720°
- 320°
- 49°
- 1°
- 1000°

ii. Convert the following radians into degrees:

- π rad
- $\pi/4$ rad
- 3π rad
- 1 rad
- 3 rad
- $\frac{3\pi}{4}$ rad
- $\frac{7\pi}{2}$ rad
- $\frac{\pi}{5}$ rad
- $\frac{1}{3}$ rad

iii. Find the area of the sector that has radius r , subtended by an angle of $\frac{\pi}{3}$. Hence, show that the area of a circle is given by πr^2 .

iv. The diagram below shows a wedge-shaped patio:

- Given that the area of the patio is 9m^2 , find the length AC .
- The owner of the house wants to put up a fence along the edge BC . What length of fencing is required to do this?
- Once putting the fence up, the owner decides he wants to enclose the entire patio with fencing. What will the total length of fencing be once this is complete?

