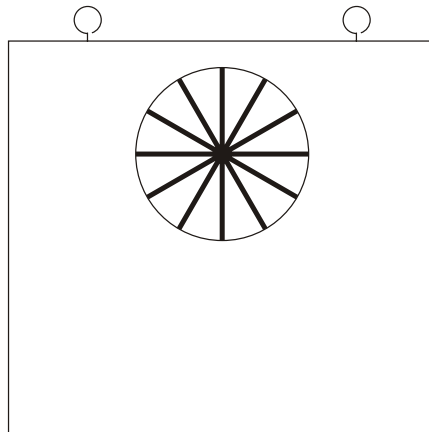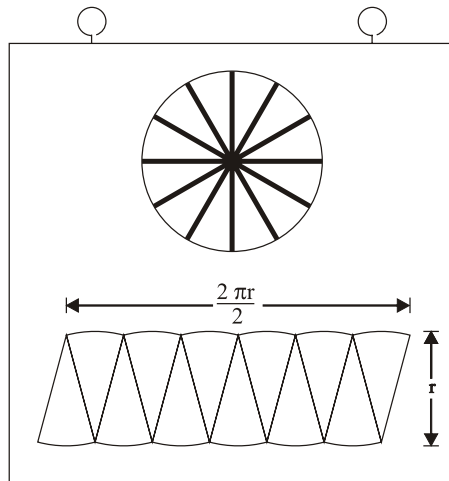**To do and observe :**

Step 1 :

Take the given circle and fix it on base using pins as shown below.

Step 2 :

Now arrange the 12 segments below the circle as shown below
We get a figure parallelogram.

$$\frac{2\,\pi r}{2}$$

r

Therefore area of circle

$\approx$ Area of parallelogram

$\approx$ length x breadth

$\approx \dfrac{2\,\pi r}{2}$ x r

$\approx \pi r^2$

Result :
Area of a circle is πr^2 where 'r' is the radius of the circle

AREA OF A CIRCLE

To show that area of a circle of radius 'r' is πr^2

Assembly :
Consists of a circle of radius 98 mm cut out of a 6 mm Eva Rubber. 12 equal segments of radius 98 mm made out of plastic. A base of 355 mm x 300 mm made out of 12 mm Eva Rubber and pins are part of the kit.

r

355 mm

300 mm

BASE

98mm(r)

Segment of a circle