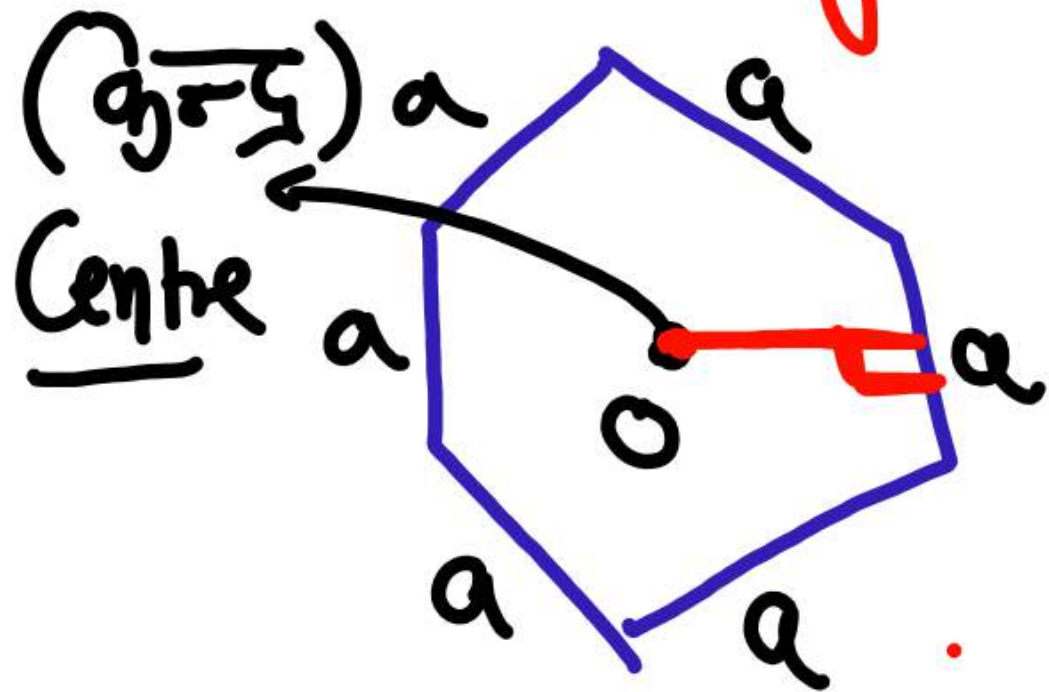


Mensuration (क्षेत्रमिति)

(2D)

समबहुभुज के क्षेत्रफल

Area of Regular polygon



$$\text{Area} = \frac{1}{2} (\text{Polygon का } \text{परिमाप}) \times \text{Perpendicular height}$$

लम्बाई (ऊँचाई)

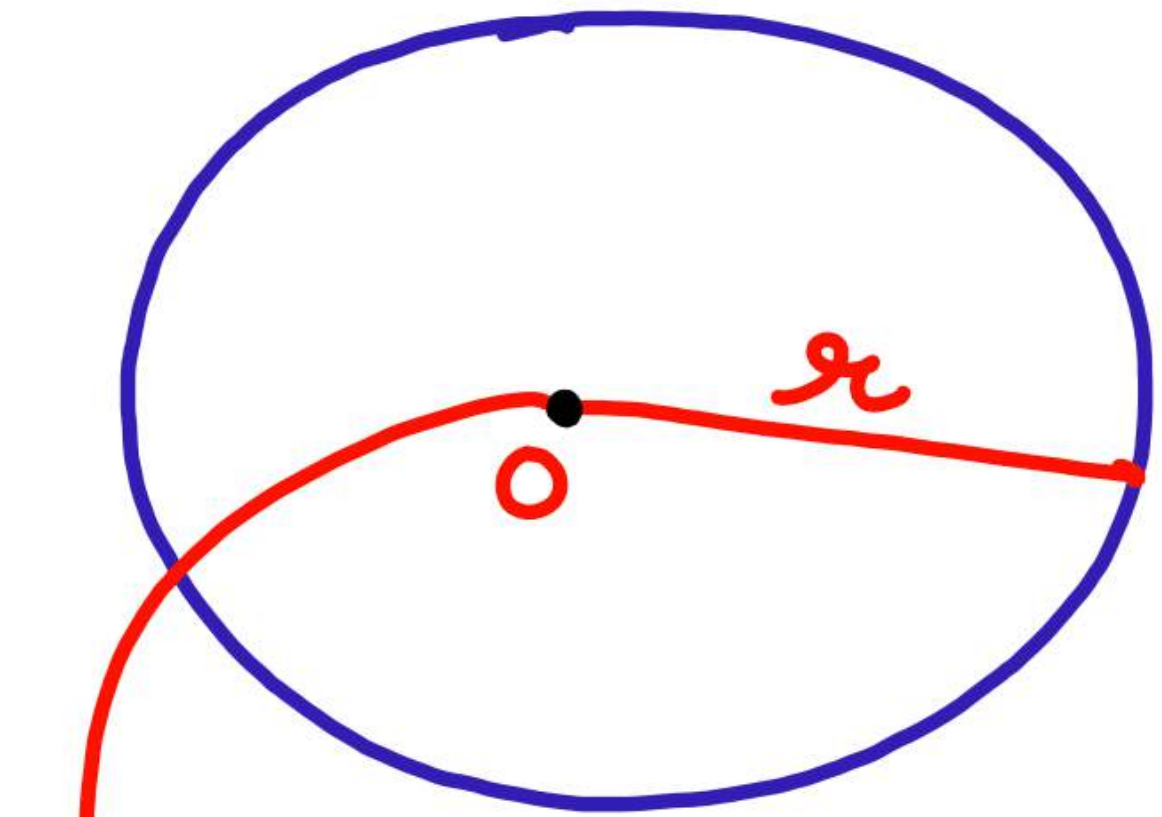
$$\underline{\text{Area}} = \frac{n}{4} a^2 \cot\left(\frac{\pi}{n}\right)$$

n = ਡੁਘਾਇਆਂ ਦੀ ਸੰਖਿਆ (number of sides)

a = ਡੁਘਾਇਆਂ

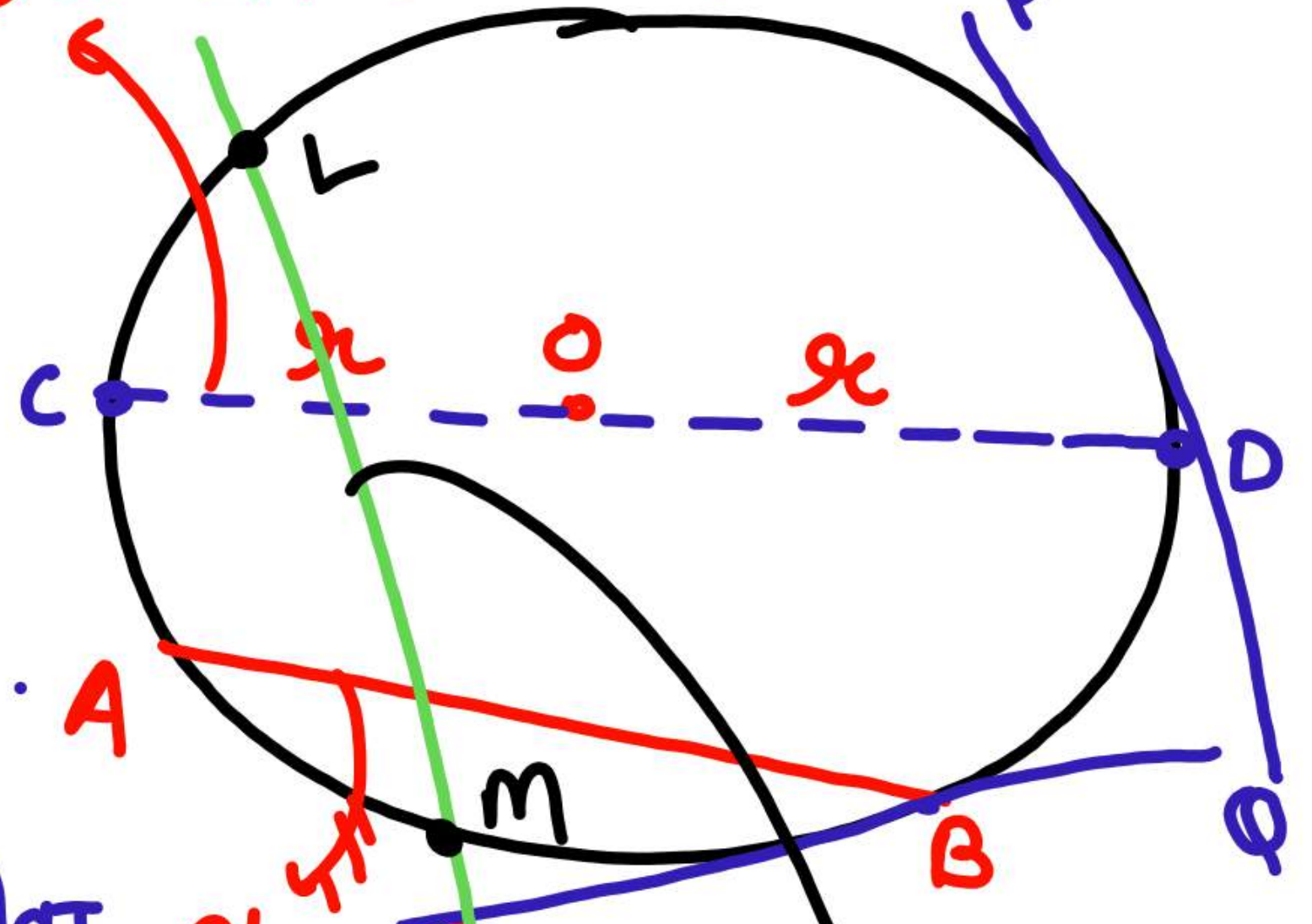
π = 180

Circle (वृत्त)



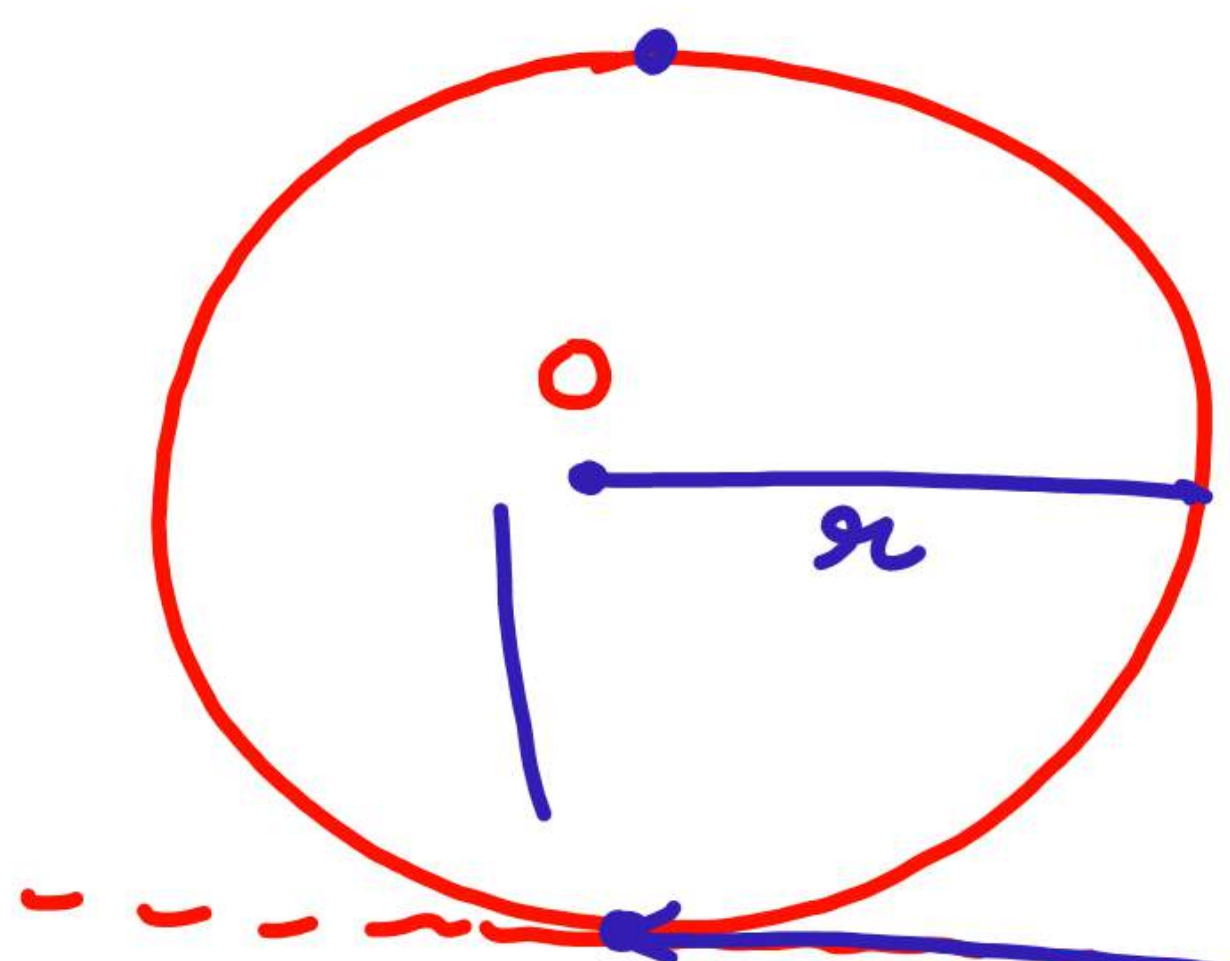
केंद्र (Centre)
 $r = r$ radius

$D =$ जीवा (सबसे बड़ी जीवा)



$AB \rightarrow$ जीवा
 Chord (जीवा)
 $(D =$ व्यास) diameter

प्रतिच्छेद
 रेखा
 Intersection

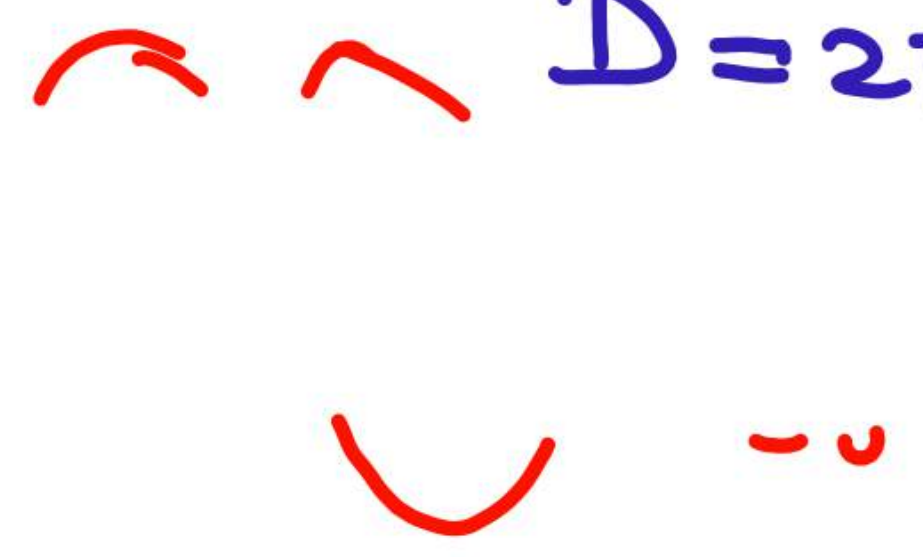


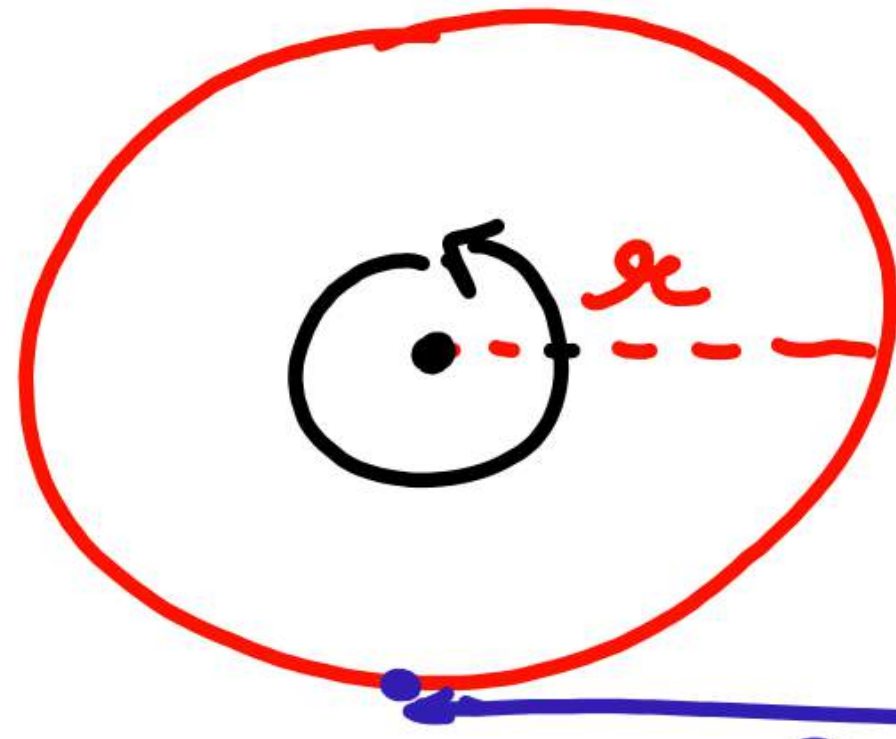
•
 π
 Constant part

Circle = $2\pi r$

$D = 2\pi r$

Perimeter = π





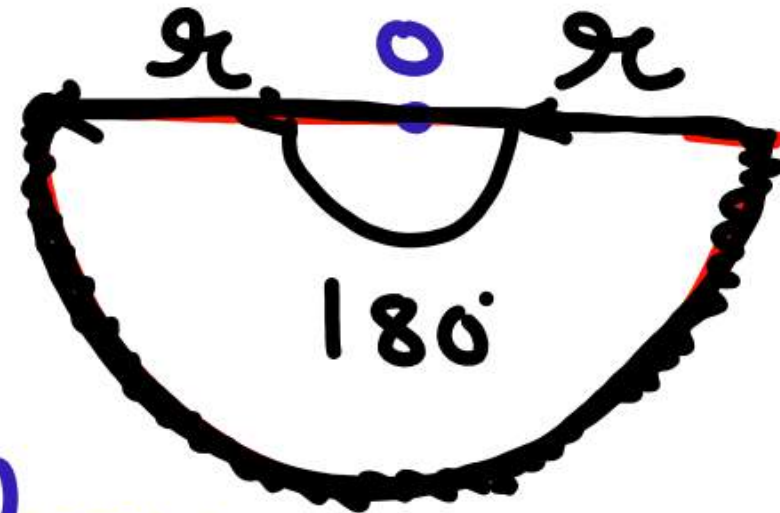
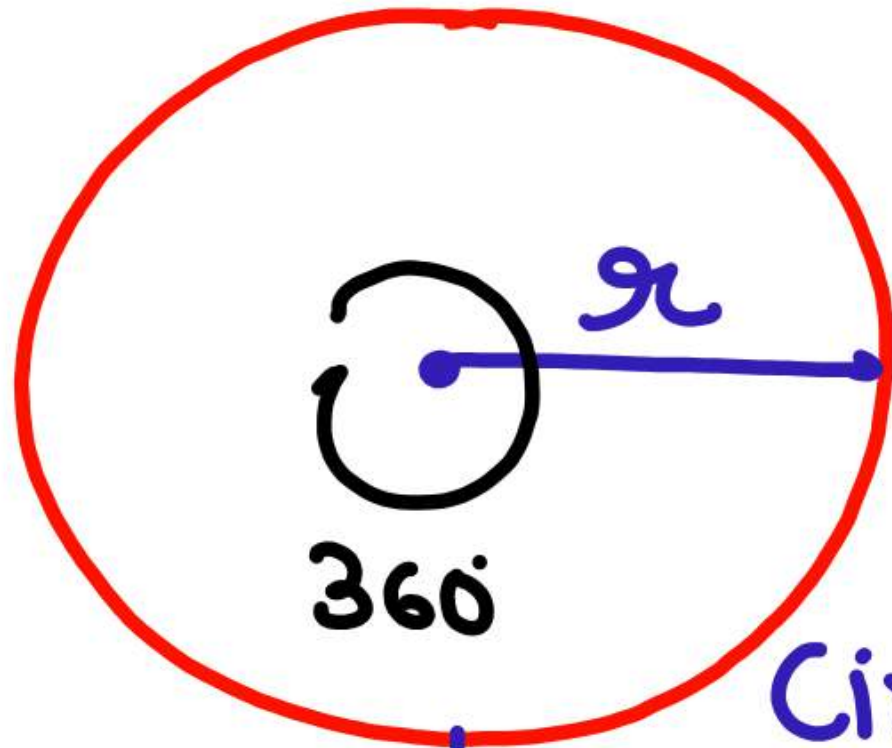
360°

• परिधि (Circumference) = $2\pi r$
एक चक्कर में तय की गई दूरी = $2\pi r$

360° angle पहिये को-पलने मे

तथ दुरी $2\pi r$

$$\pi r + 2r$$

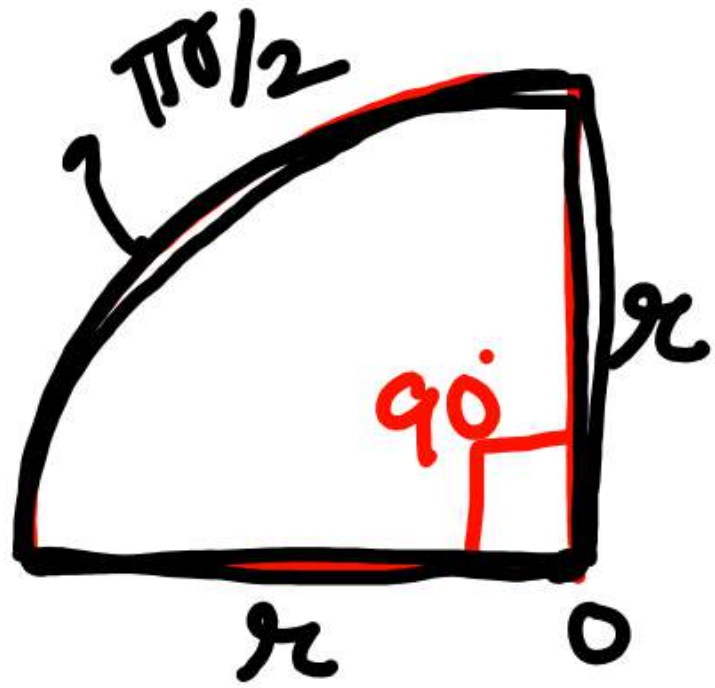


Circumf.
परिधि

arc
चाप $\Rightarrow \pi r$

Circumference

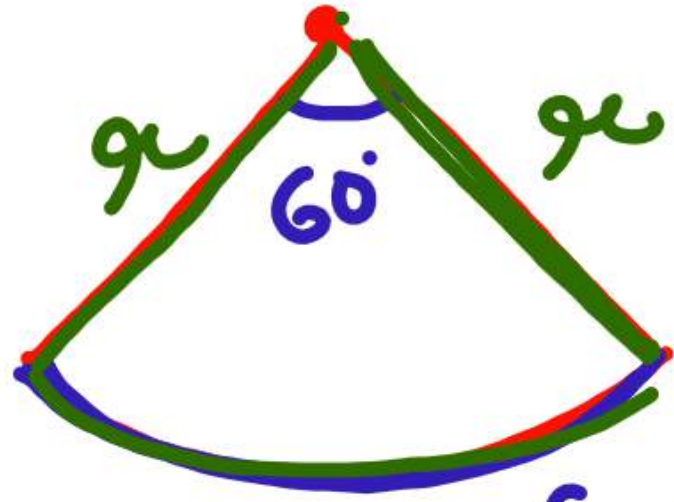
Circle \rightarrow Surface = $\underline{2\pi r} = \text{arc}(\text{चाप})$



$$\text{arc} = 2\pi r \frac{90^\circ}{360^\circ} \Rightarrow \frac{\pi r}{2}$$

$$\text{परिधि} = \frac{\pi r}{2} + 2r$$

Circumference



Circumference
परिधि

$$\Rightarrow \frac{\pi r}{3} + 2r$$

त्रिज्या
त्रिज्या

$$\text{Arc} = \frac{2\pi r}{\text{कोण}} \times \text{कोण}$$

त्रिज्या
त्रिज्या

$$\Rightarrow 2\pi r \frac{60^\circ}{360^\circ} = \frac{\pi r}{3}$$

त्रिज्या की ल. (arc length) = कोण \times radius
angle \times radius

Circumference = Unit (Unit)
 परिधि = (m)
 (cm)
 (mm)

L = 2 time \rightarrow C
 3 times \rightarrow C
 9 times \rightarrow C
 $\frac{1}{2}$ time \rightarrow C
 $\frac{1}{3}$ time \rightarrow C

\rightarrow परिधि = 2 times
 3 times
 9 times
 $\frac{1}{2}$
 $\frac{1}{3}$

$$\pi = \frac{22}{7}$$

$$r = 7$$

Circumference
(परिधि)
(Unit)

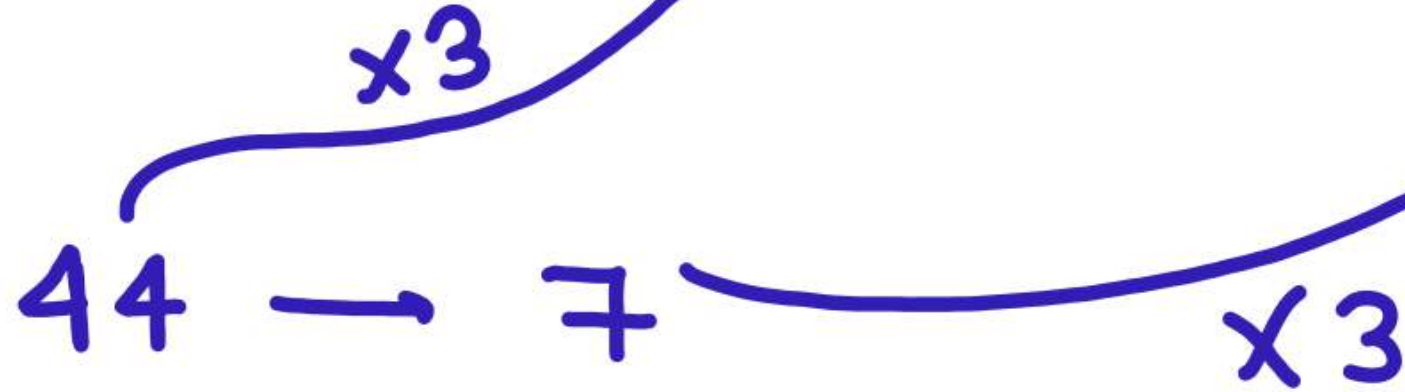
$$2\pi r \Rightarrow 2 \times \frac{22}{7} \times 7 \Rightarrow 44 \text{ (Unit)}$$

$$\text{Circum.} \Rightarrow 88 \text{ m}$$

$$r \Rightarrow 14$$

Circum. \Rightarrow 132m

$r \Rightarrow$ 21



Circ \rightarrow $\overset{9}{36}$
~~396~~ m

$r \Rightarrow$ 63cm

44
4