

Credit

# Circle Properties

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Arc length is a fraction of the circumference

$$\frac{\text{Arc length}}{\pi D} = \frac{\text{Angle}^\circ_{\text{Arc}}}{360^\circ}$$

Circumference is

$$C = \pi D$$

Tangent touches circle at one point and make angle  $90^\circ$  with point of contact radius

Diameter

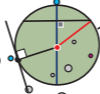
$$D = 2r$$

Radius

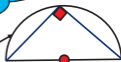
$$r = \frac{1}{2}D$$

A line that bisects a chord

1. Splits the chord into 2 equal halves.
2. Makes right-angle with the chord.
3. Passes through centre of the circle



Pythagoras Theorem  
SOHCAHTOA



Semi-circle angle is always  $90^\circ$

Area is

$$A = \pi r^2$$

Sector area is a fraction of the whole area

$$\frac{AoS}{\pi r^2} = \frac{\text{Angle}^\circ_{\text{sector}}}{360^\circ}$$