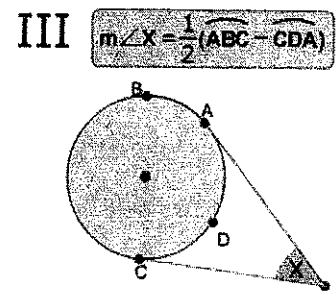
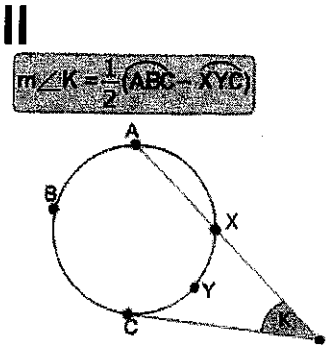
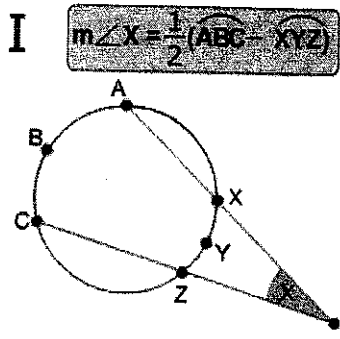
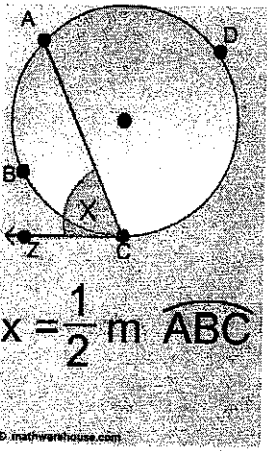
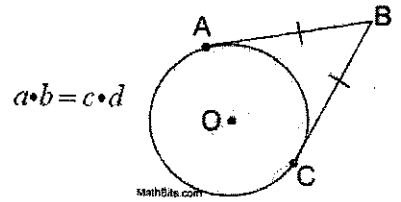
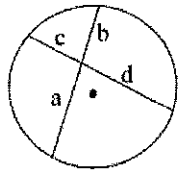
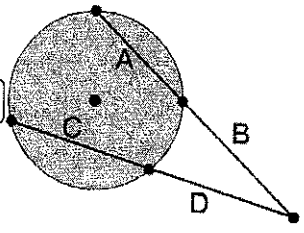
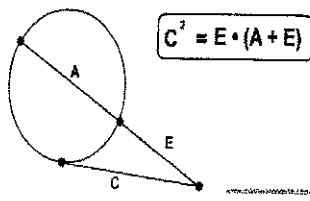


Unit 4 Circles

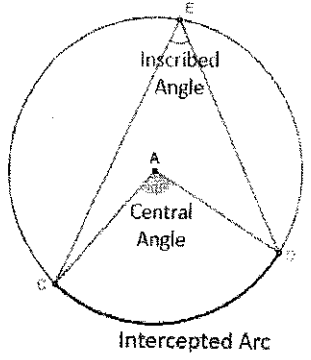


$(A+B) \cdot B = (C+D) \cdot D$

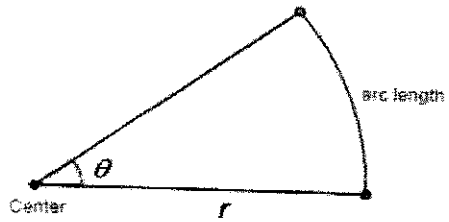


Inscribed Angle

Central Angle = measure of Intercepted Arc  
 Inscribed Angle = 1/2 Central Angle = 1/2 measure of Intercepted Arc



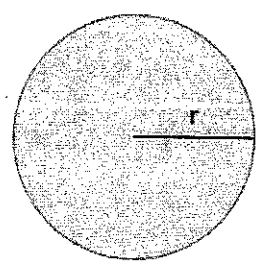
Arc Length of a Circle



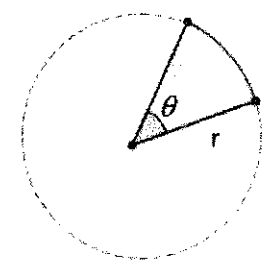
If  $\theta$  is measured in degrees then

$$\text{arc length} = \frac{\theta}{360^\circ} \times 2\pi r$$

Area of Circle and Sector



area of circle =  $\pi r^2$

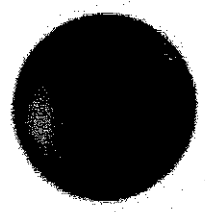


If  $\theta$  is measured in degrees then

area of sector =  $\frac{\theta}{360^\circ} \times \pi r^2$

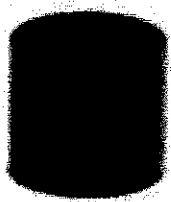
Basic shapes & their volumes

Sphere



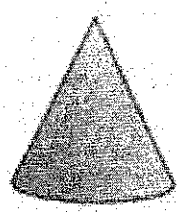
$V = \frac{4}{3} \pi r^3$

Cylinder



$V = \pi r^2 h$

Cone



$V = \frac{1}{3} \pi r^2 h$

Cavalieri's Principle

If same cross section and height & parallel bases, then same volume

