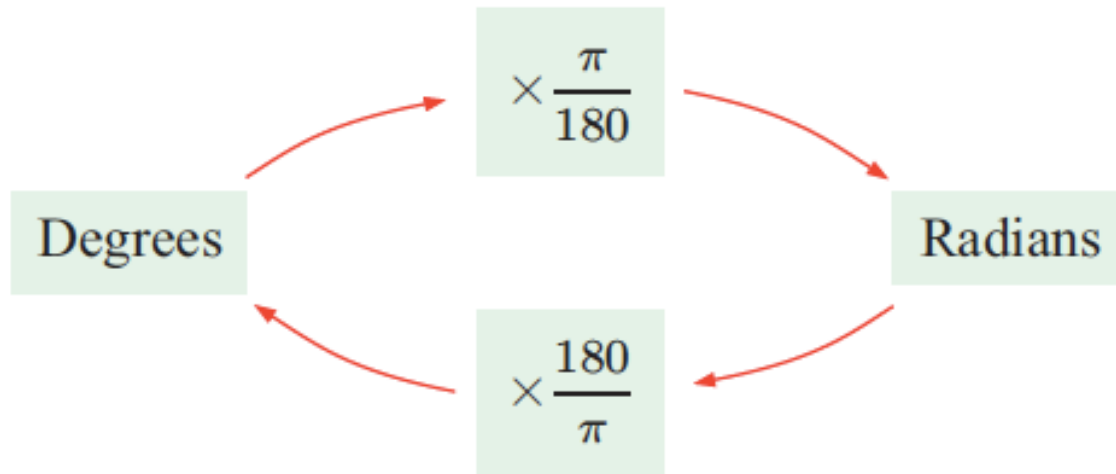


Sector and Triangle



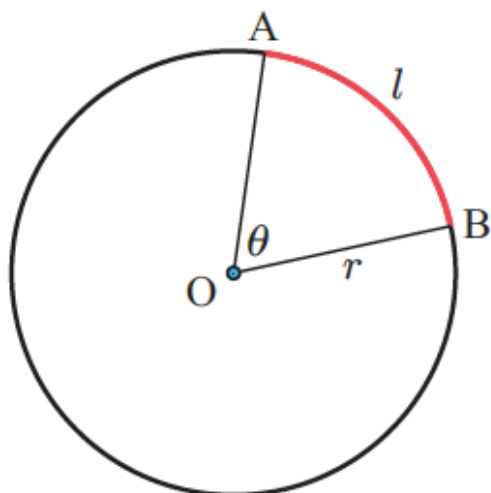
Special angles

Degrees	Radians
30°	
	$\frac{\pi}{4}$
60°	
90°	
	$\frac{\pi}{2}$
	$\frac{3\pi}{2}$
	2π

Arc Length

$l = r\theta$, where θ is the angle of sector in **radians**

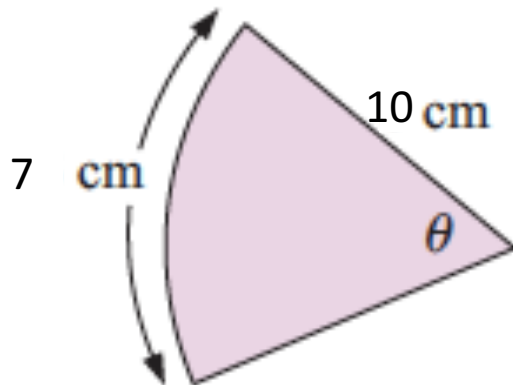
$l = 2\pi r \times \frac{\theta}{360}$, where θ is the angle of sector in **degrees**



1. Find the arc length for the sector of a circle of radius 5 cm and angle 2.00 radians.

2. Find the arc length for the sector of a circle of radius 10 cm and angle 120° .

3. Find θ (in radians) of the following sector.

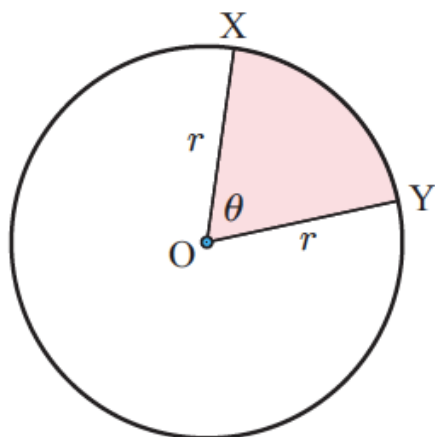


4. A sector has an angle of 1.42 radians and an arc length of 30.4 cm. Find the radius of the sector.

Sector area

Area = $\frac{1}{2}r^2\theta$, where θ is the angle of sector in **radians**

Area = $\pi r^2 \times \frac{\theta}{360}$, where θ is the angle of sector in **degrees**



1. Find the sector area for the sector of a circle of radius 6 cm and angle 1.55 radians.

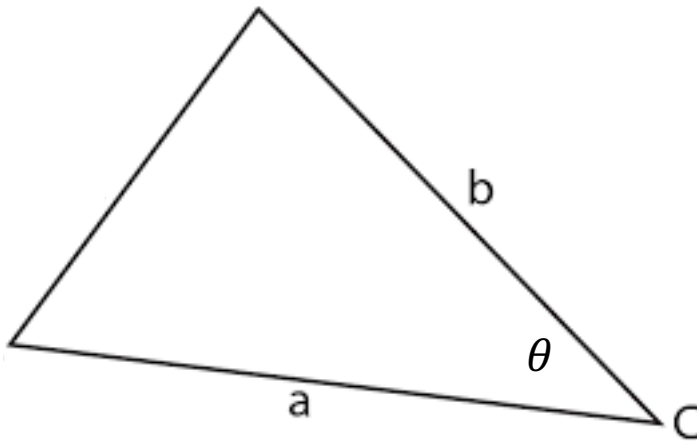
2. Find the sector area for the sector of a circle of radius 10 cm and angle 120° radians.

Non-right angled triangle area

$$\text{Area} = \frac{1}{2}ab \sin \theta$$

θ is included angle, between side a and b.

θ can be in degrees or radians.



1. Find the area of triangle ABC.

