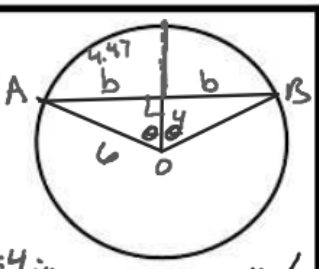
The perpendicular distance from the center of the circle to a chord is 4 inches. What is the length of the chord? What is the measure of its central angle?




$4^2+b^2=6^2$

$b^2=20$

$b=\sqrt{20}$

$\approx 4.47$

$AB = 8.94$ in

$\cos\theta = \frac{4}{6}$

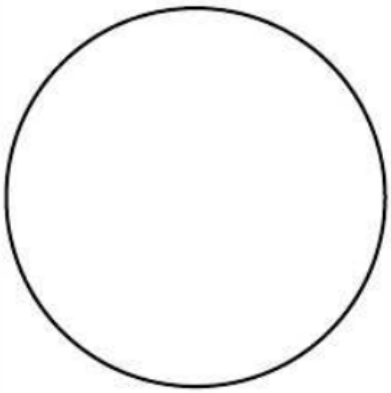
$\cos^{-1}\left(\frac{4}{6}\right)=\theta$

$\theta = 48.19^\circ$

$m\angle AOB = 96.38^\circ$

## Inscribed Angles in Circles

Inscribed Angles



Congruent Inscribed Angles