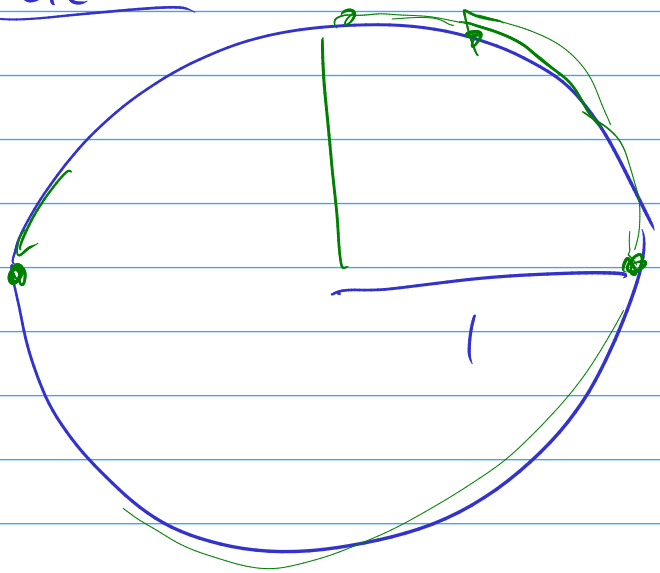
Angles

Radians

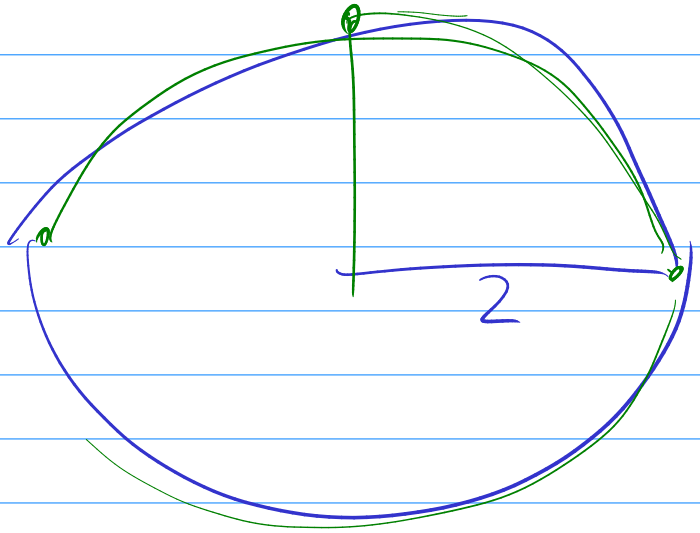


$360^\circ \quad 2\pi \to 2\pi$

$180^\circ \quad \pi \to \pi$

$90^\circ \quad \frac{\pi}{2} \to \frac{\pi}{2}$

$60^\circ \quad \frac{\pi}{3} \to \frac{\pi}{3}$

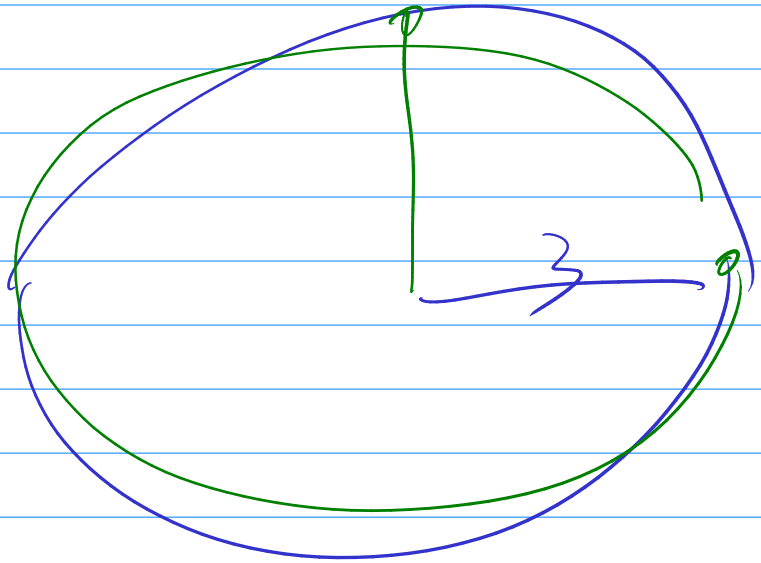


$360^\circ \quad 4\pi \to 2\pi$

$180^\circ \quad 2\pi \to \pi$

$90^\circ \quad \pi \to \frac{\pi}{2}$

$60^\circ \quad \frac{2\pi}{3} \to \frac{\pi}{3}$



$360^\circ \quad 6\pi$

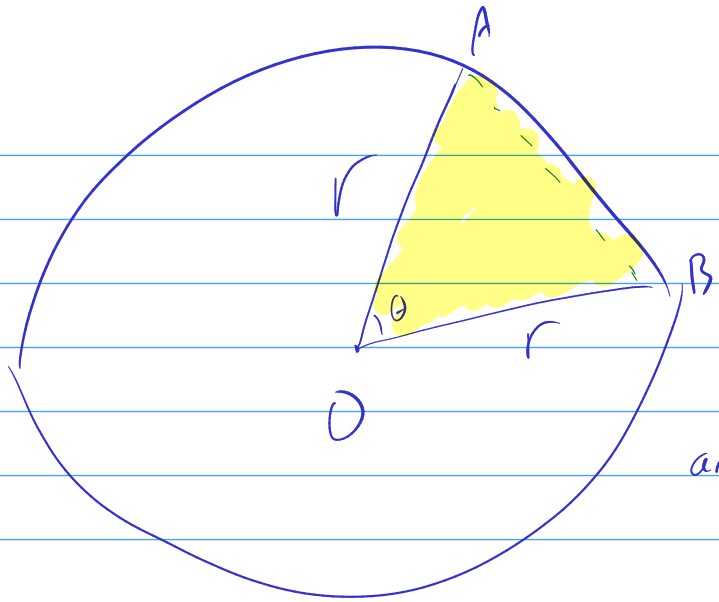
$90^\circ \quad \frac{3}{2}\pi \to \frac{\pi}{2}$

degrees → radians

$\cdot \frac{\pi}{180^\circ}$

rad → deg

$\cdot \frac{180^\circ}{\pi}$



$$\frac{\text{dist. } \overset{\frown}{AB}}{r} = \theta$$

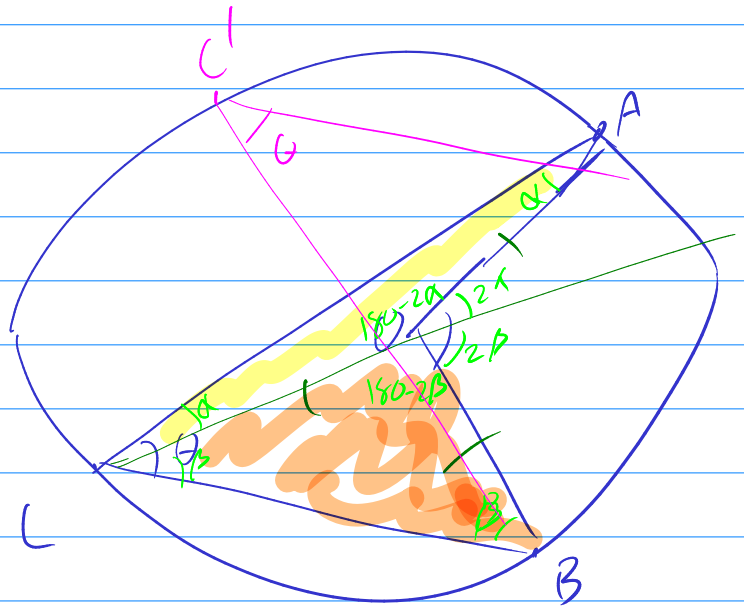
$$\text{dist } \overset{\frown}{AB} = \theta r$$

(θ in radians)

$$\text{area } \overset{\frown}{AOB} = \pi r^2 \cdot \frac{\theta}{2\pi} = \frac{r^2\theta}{2}$$

$$\overline{AB} = \theta$$

1.

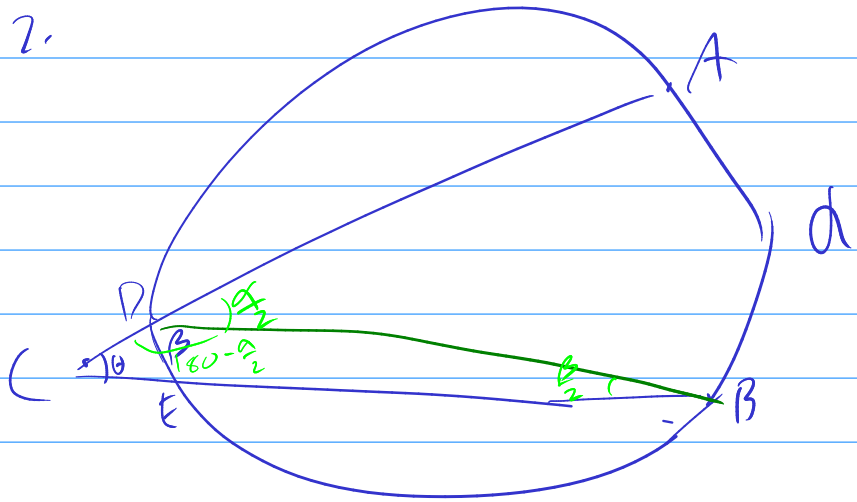


$$\overset{\frown}{AB} = 2\alpha + 2\beta$$

$$= 2\theta$$

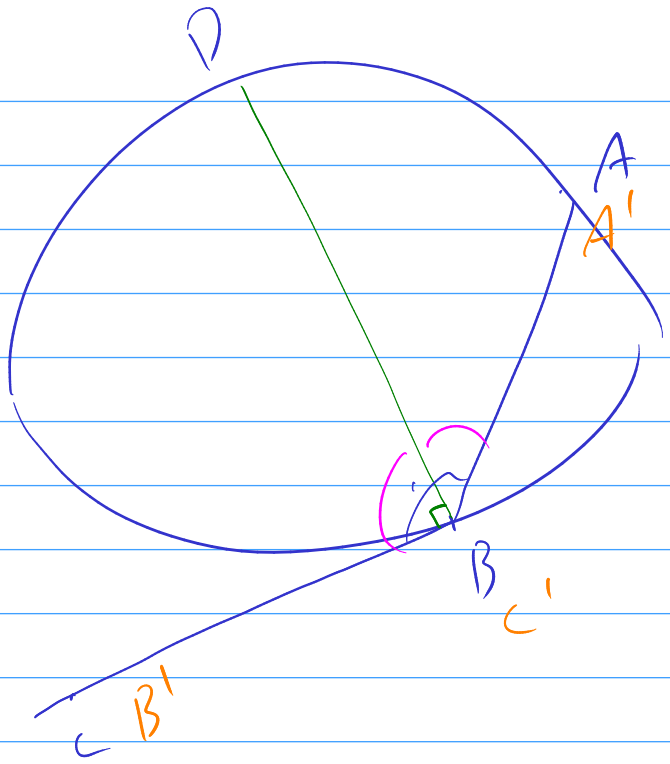
$$\theta = \frac{\alpha}{2}$$

2.



$$\theta = \frac{\alpha}{2} - \frac{\beta}{2}$$

3.



$\widehat{BD} = 2 \cdot \angle DBC$

$\widehat{BD} = \pi$

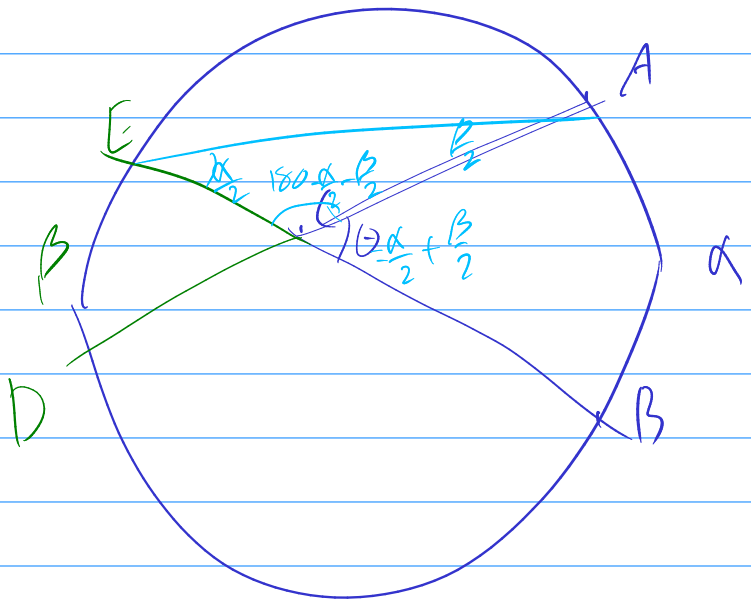
$\angle DBC = \frac{\pi}{2}$

$\widehat{AD} = 2 \cdot \angle ABD$

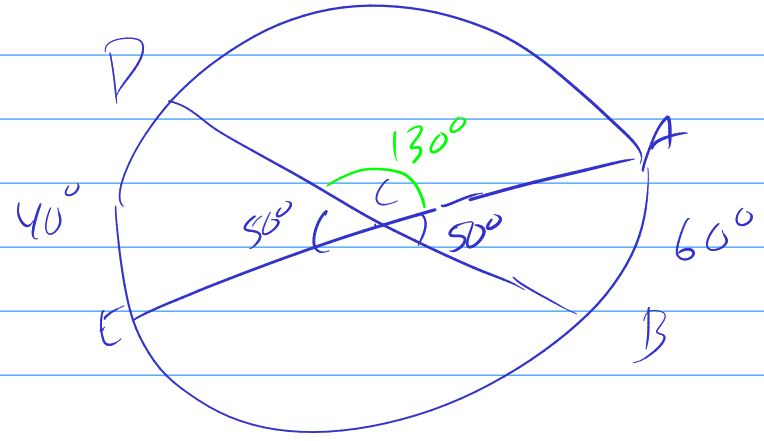
$\widehat{ADB} = 2(\angle DBC + \angle ABD)$

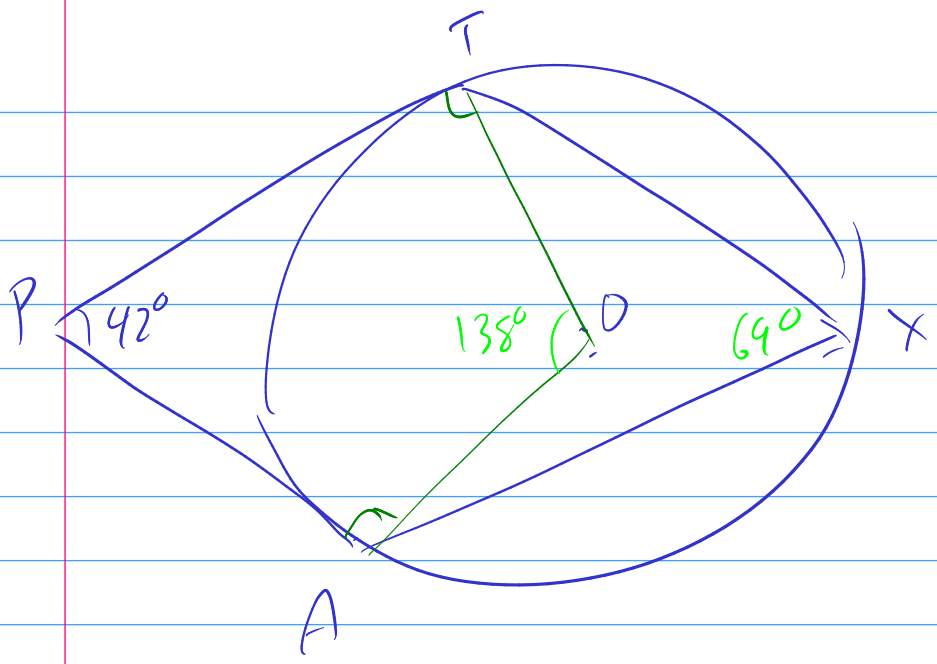
$= 2 \cdot \angle ABC$

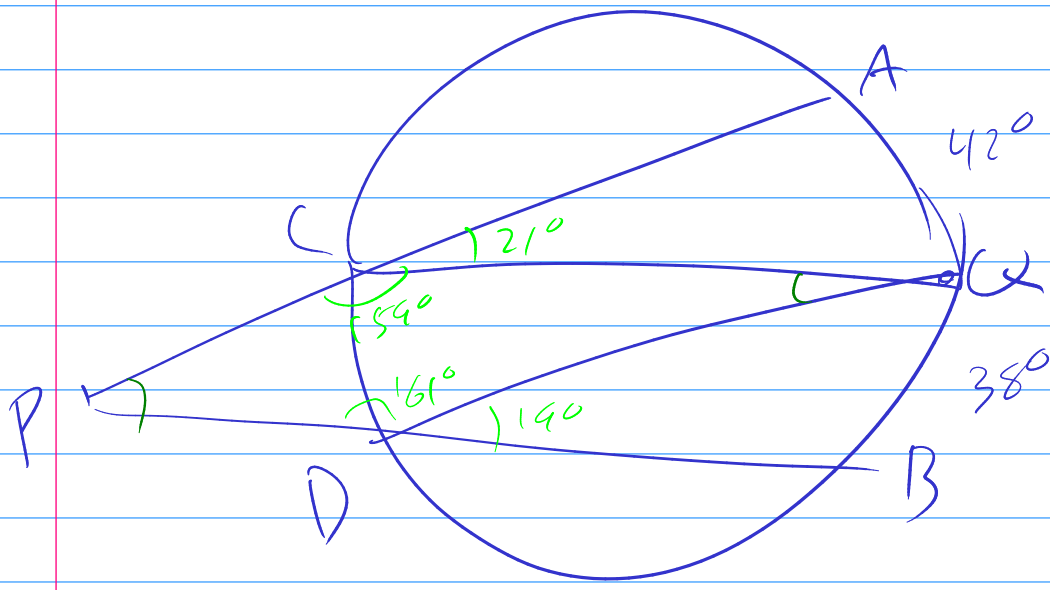
4.



$\theta = \frac{\alpha}{2} + \frac{\beta}{2}$

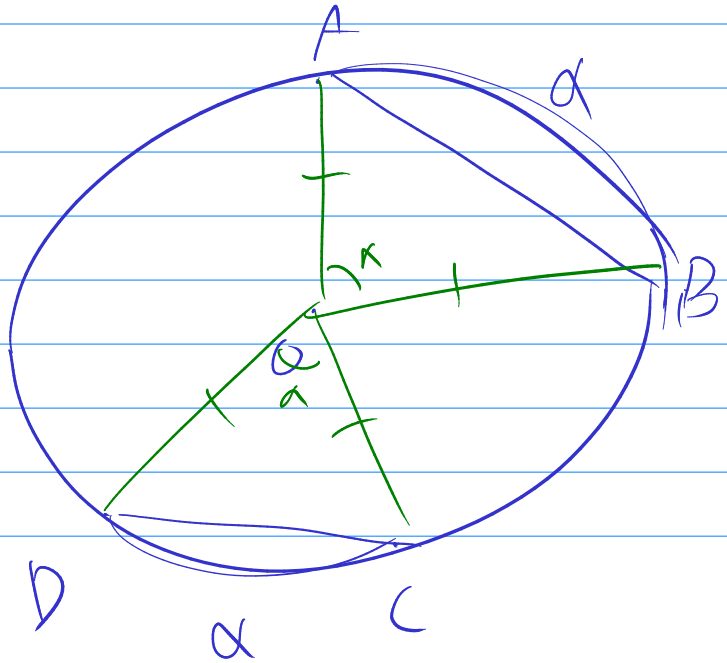






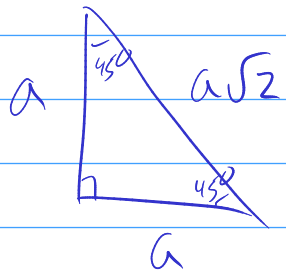
360 - 159 - 161

-40

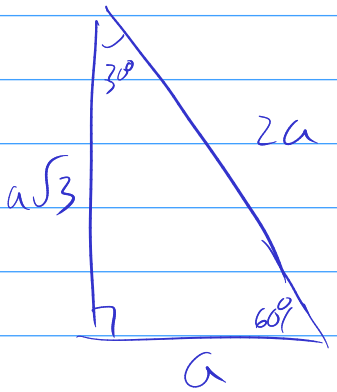


$\overline{AB} = \overline{CD}$

45-45-90



30-60-90



60-60-60