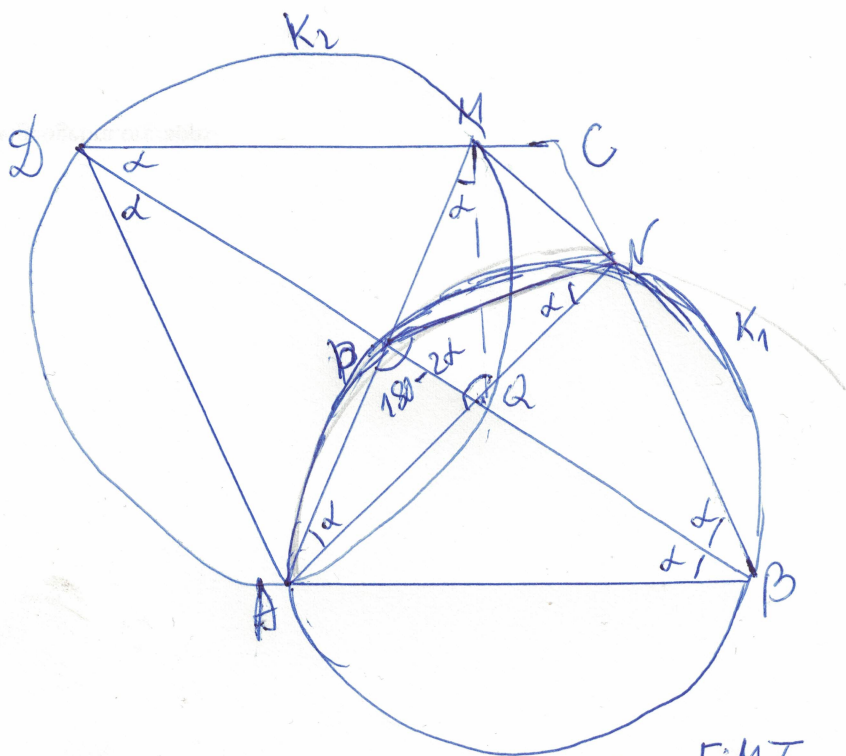




От условиято $\Rightarrow \angle A \cup B \in \Gamma MT$ от които PN се

визира пог $\neq \alpha$ - окр. $K_1(R_1)$

$$\text{От } \sin T \text{ за } \triangle APN \Rightarrow \frac{AP}{\sin \alpha} = \frac{AN}{\sin(180-2\alpha)} \Rightarrow \frac{AP}{AN} = \frac{\sin \alpha}{\sin 2\alpha} =$$

$$= \frac{\sin \alpha}{2 \sin \alpha \cos \alpha} = \frac{1}{2 \cos \alpha} \text{ или } \frac{AN}{AP} = 2 \cos \alpha \quad (1)$$

Аналогично $\angle D \cup A \in \Gamma MT$ от които MQ се

визира пог 2α

$$\text{От } \sin T \text{ за } \triangle AMQ \Rightarrow \frac{AM}{\sin(180-2\alpha)} = \frac{AQ}{\sin \alpha} \Rightarrow$$

$$\frac{AM}{AQ} = \frac{\sin 2\alpha}{\sin \alpha} = 2 \cos \alpha \quad (2)$$

От (1) и (2) и $\angle A$ общ $\Rightarrow \triangle APQ \sim \triangle ANM$

$$\frac{S_{\triangle AMN}}{S_{\triangle APQ}} = \frac{AM^2}{AQ^2} = (2 \cos \alpha)^2 = \underline{\underline{4 \cos^2 \alpha}}$$