

A feladat értelmében

$$\begin{aligned}\operatorname{ctg}\frac{\alpha}{2} + \operatorname{ctg}\frac{\gamma}{2} &= 2 \operatorname{ctg}\frac{\beta}{2} = 2 \operatorname{ctg}\left(90^\circ - \frac{\alpha + \gamma}{2}\right) = \\ &= \frac{2}{\operatorname{ctg}\frac{\alpha + \gamma}{2}} = 2 \frac{\operatorname{ctg}\frac{\alpha}{2} + \operatorname{ctg}\frac{\gamma}{2}}{\operatorname{ctg}\frac{\alpha}{2} \operatorname{ctg}\frac{\gamma}{2} - 1},\end{aligned}$$

vagyis

$$1 = \frac{2}{\operatorname{ctg}\frac{\alpha}{2} \operatorname{ctg}\frac{\gamma}{2} - 1},$$

miből

$$\operatorname{ctg}\frac{\alpha}{2} \cdot \operatorname{ctg}\frac{\gamma}{2} = 3.$$

*(Köhler István, Budapest.)*