

$$\begin{aligned}
\sin(\alpha + \beta) \sin(\alpha - \beta) &= (\sin \alpha \cos \beta + \cos \alpha \sin \beta)(\sin \alpha \cos \beta - \cos \alpha \sin \beta) = \\
&= \sin^2 \alpha \cos^2 \beta - \cos^2 \alpha \sin^2 \beta = \sin^2 \alpha (1 - \sin^2 \beta) - (1 - \sin^2 \alpha) \sin^2 \beta = \\
&= \sin^2 \alpha - \sin^2 \beta,
\end{aligned}$$

tehát

$$\begin{aligned}
\sin(\alpha + \beta) \sin(\alpha - \beta) - (\sin \alpha + \sin \beta)(\sin \alpha - \sin \beta) &= \\
&= \sin^2 \alpha - \sin^2 \beta - (\sin^2 \alpha - \sin^2 \beta) = 0.
\end{aligned}$$

*(Schudich Lajos, Eperjes.)*