

$$\begin{aligned}\sin^2 30^\circ + \operatorname{tg}30^\circ \operatorname{tg}120^\circ + \sin^2 60^\circ &= \sin^2 30^\circ + \cos^2 30^\circ - \operatorname{tg}30^\circ \operatorname{tg}60^\circ = \\ &= 1 - \operatorname{tg}30^\circ \operatorname{ctg}30^\circ = 1 - 1 = 0.\end{aligned}$$

(Steinitz Károly, Pécs.)