$$\frac{\operatorname{ctg}\alpha+\operatorname{ctg}\beta}{\operatorname{ctg}\alpha-\operatorname{ctg}\beta}=\frac{\frac{\cos\alpha}{\sin\alpha}+\frac{\cos\beta}{\sin\beta}}{\frac{\cos\alpha}{\sin\alpha}-\frac{\cos\beta}{\sin\beta}}=\frac{\cos\alpha\sin\beta+\sin\alpha\cos\beta}{\cos\alpha\sin\beta-\sin\alpha\cos\beta}=$$

$$=\frac{\sin(\alpha+\beta)}{-\sin(\alpha-\beta)}=-\frac{\sin(\alpha+\beta)}{\sin(\alpha-\beta)},$$

tehát

$$\frac{\operatorname{ctg}\alpha+\operatorname{ctg}\beta}{\operatorname{ctg}\alpha-\operatorname{ctg}\beta}+\frac{\sin(\alpha+\beta)}{\sin(\alpha-\beta)}=0.$$

(Spitzer Leó, Budapest, V. ker.)

Megoldások száma: 18.