Zadatak 29.   Ako je $\alpha + \beta = \dfrac{3\pi}{4}$, koliko je
$(1 + \operatorname{ctg}\alpha)(1 + \operatorname{ctg}\beta)$?

Rješenje. $\alpha + \beta = \dfrac{3\pi}{4}$;

$$\operatorname{ctg}(\alpha + \beta) = \frac{\operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta - 1}{\operatorname{ctg}\alpha + \operatorname{ctg}\beta} = \operatorname{ctg}\frac{3\pi}{4} = -1$$

$$\implies \operatorname{ctg}\alpha + \operatorname{ctg}\beta = 1 - \operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta$$

$$(1 + \operatorname{ctg}\alpha)(1 + \operatorname{ctg}\beta) = 1 + \underbrace{\operatorname{ctg}\alpha + \operatorname{ctg}\beta}_{1 - \operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta} + \operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta =$$

$$1 + 1 - \operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta + \operatorname{ctg}\alpha \cdot \operatorname{ctg}\beta = 2$$