NMU Math & CS Department

Problem of the Month, October 2022

Suppose that α, β, γ are positive angles with $\alpha + \beta + \gamma = \dfrac{\pi}{2}$.

Express the unknown lengths in the picture below in such a manner that proves:

$$\tan(\alpha)\tan(\beta) + \tan(\beta)\tan(\gamma) + \tan(\alpha)\tan(\gamma) = 1.$$

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