Zadatak 33.   Koliko je $\cos(a - b)$ akoje $\sin a + \sin b = 1$, $\cos a + \cos b = \sqrt{2}$?

Rješenje.

$$\sin a + \sin b = 1 \quad /^2$$
$$\cos a + \cos b = \sqrt{2} \quad /^2$$

$$\left.\begin{array}{l} \sin^2 a + 2\sin a \cdot \sin b + \sin^2 b = 1 \\ \cos^2 a + 2\cos a \cdot \cos b + \cos^2 b = 2 \end{array}\right\} +$$

$$1 + 2\sin a \cdot \sin b + 2\cos a \cdot \cos b + 1 = 3$$
$$2(\sin a \cdot \sin b + \cos a \cdot \cos b) = 3 - 2$$
$$2\cos(a - b) = 1$$
$$\cos(a - b) = \frac{1}{2}$$

$\cos(a - b) = \frac{1}{2}$.