**Zadatak 17.** Ako je $f(x) = \sin^4 x + \cos^4 x$, te $\sin 2x_0 = \frac{2}{3}$, koliko je $f(x_0)$?

***Rješenje.***

$$f(x) = (\sin^2 x + \cos^2 x)^2 - 2\sin^2 x \cos^2 x = 1 - \frac{1}{2}\sin^2 2x;$$

$$f(x_0) = 1 - \tfrac{1}{2}\sin^2 2x_0 = 1 - \frac{1}{2} \cdot \frac{4}{9} = \tfrac{7}{9}.$$