

GONIOMETRICKÉ ROVNICE RIEŠENÉ SUBSTITÚCIOU A VZORCAMI

① a) $\cos\left(2x + \frac{1}{2}\pi\right) = 1$ b) $\sin\left(3x - \frac{1}{2}\pi\right) = 0$ c) $\sin\left(2x + \frac{1}{6}\pi\right) = -1$ d) $\sin\left(3x + \frac{1}{3}\pi\right) = -\frac{\sqrt{3}}{2}$

e) $\frac{2}{3}\cos\left(\frac{x}{7} - \frac{\pi}{5}\right) = \frac{\sqrt{3}}{3}$ f) $2\cos\left(\frac{x}{3}\right) = \sqrt{3}$ g) $\cos(2x) = -\frac{1}{2}$ h) $\operatorname{tg}(3x) = \sqrt{3}$

i) $\cos\left(x + \frac{1}{2}\pi\right) = \frac{\sqrt{2}}{2}$ j) $\frac{1}{5}\cos\left(3x + \frac{\pi}{4}\right) = -\frac{3}{5}$ k) $\operatorname{tg}\left(\frac{3x}{4} - \frac{\pi}{3}\right) = -\sqrt{3}$ l) $\sin\left(x - \frac{1}{4}\pi\right) = 0$

m) $\sin\left(2x + \frac{1}{3}\pi\right) = -\frac{\sqrt{3}}{2}$ n) $\sin\left(2x + \frac{1}{2}\pi\right) = 1$ o) $\sin\left(3x - \frac{1}{3}\pi\right) = -\frac{\sqrt{3}}{2}$ p) $\cos\left(2x + \frac{1}{3}\pi\right) = -\frac{1}{2}$

q) $\frac{1}{5}\sin\left(3x + \frac{\pi}{4}\right) = -\frac{3}{5}$ r) $\sin(2x) = \frac{1}{2}$ s) $\cos\left(2x + \frac{1}{6}\pi\right) = -1$ t) $\operatorname{tg}\left(\frac{5x}{2} + \frac{\pi}{3}\right) = -\sqrt{3}$

u) $\sin\left(3x + \frac{1}{3}\pi\right) = -\frac{\sqrt{3}}{2}$ v) $2\sin\left(\frac{x}{3}\right) = \sqrt{3}$ w) $\sin\left(2x + \frac{\pi}{3}\right) = -\frac{1}{2}$ x) $\operatorname{tg}\left(3x - \frac{\pi}{4}\right) = \sqrt{3}$

y) $\sin\left(\frac{x}{2} - \frac{1}{6}\pi\right) = \frac{\sqrt{2}}{2}$ z) $\cos\left(3x - \frac{1}{2}\pi\right) = 0$

② a) $2\cos^2 x + 5\cos x - 3 = 0$ b) $2\sin^2 x - 7\sin x + 3 = 0$ c) $\operatorname{tg}^2 x - 7\operatorname{tg} x + 10 = 0$

d) $\cos^2 x + \cos x = 0$ e) $\operatorname{tg} x - \operatorname{cotg} x = 1$ f) $2\operatorname{tg} x - 3\operatorname{cotg} x = 5$

g) $\operatorname{tg} x \cdot \operatorname{cotg} x = 0$ h) $\frac{1}{\cos^2 x} - \operatorname{tg}^2 x = 1$ i) $2\cos^2 x = \sin x + 1$

j) $2 + 2\cos x = 3\sin^2 x$ k) $\cos^2 x + \cos x = \sin^2 x$ l) $2\cos^2 x = 3\sin x$

m) $2\sin^2 x - 3\cos x = 0$ n) $2\cos^2 x + \sin x = 1$ o) $2\sin^2 x + 7\cos x = 5$

p) $\sin x + \cos 2x = 1$ q) $\sin 2x = (\sin x - \cos x)^2$ r) $\cos^2 x - \sin^2 x = -0,5$

s) $\sin^2 x + \frac{1}{2}\sin 2x = 1$ t) $\sin x \cdot \operatorname{cotg} 2x = 0$ u) $\sin 2x = \cos 3x \cdot \sin 2x$

v) $\operatorname{cotg} 2x = \operatorname{tg} 3x \cdot \operatorname{cotg} 2x$ w) $\cos x = \sin 2x \cdot \cos x$ x) $\sqrt{3}\sin x + \cos x = 1$

y) $\sin x + \cos x = 1$ z) $\sin x - \cos x = \frac{\sqrt{2}}{2}$