B

Řešte základní goniometrické rovnice:

rovnice	úpravy	X_0	Kvadrant	Výsledek
$a)\ \operatorname{cotg} x = -\sqrt{3}$	$\operatorname{cotg} x_0 = \sqrt{3}$	$\frac{\pi}{6}$	II.	$x \in \left\{\frac{5\pi}{6} + k\pi\right\}$ $k \in Z$
$b)\ 2\cos x = \sqrt{3}$	$2\cos x = \sqrt{3}$ $\cos x = \frac{\sqrt{3}}{2}$	$\frac{\pi}{6}$	I., IV.	$x \in \left\{\begin{matrix}\frac{\pi}{6} + k2\pi, \\ \frac{11\pi}{6} + k2\pi\end{matrix}\right\}$ $k \in Z$
$c)\ \sin 2x = -1$	$2x = a$ $\sin a = -1$ $a = \frac{3\pi}{2} + k2\pi \Rightarrow x = \frac{3\pi}{4} + k\pi$			$x \in \left\{\frac{3\pi}{4} + k\pi\right\}$ $k \in Z$
$d)\ 3\cos 6x = -5$	$3\cos 6x = -5$ $\cos 6x = -\frac{5}{3}$			$\emptyset$
$e)\ \sqrt{3}\ \operatorname{cotg} 3x = 3$	$\sqrt{3}\ \operatorname{cotg} 3x = 3$ $\cot g\, 3x = \sqrt{3}$ $3x = a \Rightarrow \cot g\, a = \sqrt{3}$ $a = \frac{\pi}{6} + k\pi \Rightarrow x = \frac{\pi}{18} + k\frac{\pi}{3}$		I.	$x \in \left\{\frac{\pi}{18} + k\frac{\pi}{3}\right\}$ $k \in Z$
$f)\ \cos^2 x + \cos x = 0$	$\cos^2 x + \cos x = 0$ $\cos x \cdot (\cos x + 1) = 0 \Rightarrow$ $\cos x = 0 \vee \cos x = -1$	$x_{01} = \frac{\pi}{2}$ $x_{02} = \pi$	--	$x \in \left\{\begin{matrix}\frac{\pi}{2} + k\pi, \\ \pi + k2\pi\end{matrix}\right\}$ $k \in Z$

Zpět: