3) Řešte v R, určete podmínky řešitelnosti

$$2\cos^2 x - \sqrt{2}\cos x - 2 = 0$$
$$\cos x = t$$
$$2t^2 - \sqrt{2}t - 2 = 0$$
$$D = 2 + 16 = 18$$
$$t_{1,2} = \frac{\sqrt{2} \pm 3\sqrt{2}}{4} \Rightarrow t_1 = \sqrt{2}, \quad t_2 = -\frac{\sqrt{2}}{2}$$
$$\cos x = \sqrt{2} \Rightarrow P = \varnothing$$

$$\cos x = -\frac{\sqrt{2}}{2} \Rightarrow x_0 = \frac{\pi}{4},\ II., III.\ kv$$
$$x = \frac{3\pi}{4} + k2\pi$$
$$x = \frac{5\pi}{4} + k2\pi$$

$$P = \left\{\frac{3\pi}{4} + k2\pi, \frac{5\pi}{4} + k2\pi\right\}, k \in Z$$

Zpět: Další: