

Zadatak 3. Odredi u radijanima mjeru kuta od:

- 1) 30° , 45° , 75° , 120° , 135° ;
- 2) 210° , 225° , 300° , 330° , 360° ;
- 3) $7^\circ 30'$, 15° , 20° , $22^\circ 30'$, 25° ;
- 4) 220° , 400° , 480° , 570° , 720° .

Rješenje.

$$\begin{aligned} 1) \quad \varphi_1 &= 30^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{6}, & \varphi_2 &= 45^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{4}, \\ \varphi_3 &= 75^\circ \cdot \frac{\pi}{180^\circ} = \frac{5\pi}{12}, & \varphi_4 &= 120^\circ \cdot \frac{\pi}{180^\circ} = \frac{2\pi}{3}, \\ \varphi_5 &= 135^\circ \cdot \frac{\pi}{180^\circ} = \frac{3\pi}{4}; \end{aligned}$$

$$\begin{aligned} 2) \quad \varphi_1 &= 210^\circ \cdot \frac{\pi}{180^\circ} = \frac{7\pi}{6}, & \varphi_2 &= 225^\circ \cdot \frac{\pi}{180^\circ} = \frac{5\pi}{4}, \\ \varphi_3 &= 300^\circ \cdot \frac{\pi}{180^\circ} = \frac{5\pi}{3}, & \varphi_4 &= 330^\circ \cdot \frac{\pi}{180^\circ} = \frac{11\pi}{6}, \\ \varphi_5 &= 360^\circ \cdot \frac{\pi}{180^\circ} = 2\pi; \end{aligned}$$

$$\begin{aligned} 3) \quad \varphi_1 &= 7^\circ 30' \cdot \frac{\pi}{180^\circ} = \left(7 + \frac{30}{60}\right)^\circ \cdot \frac{\pi}{180^\circ} = 7.5^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{24}, \\ \varphi_2 &= 15^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{12}, \\ \varphi_3 &= 20^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{9}, \\ \varphi_4 &= 22^\circ 30' \cdot \frac{\pi}{180^\circ} = 22.5^\circ \cdot \frac{\pi}{180^\circ} = \frac{\pi}{8}, \\ \varphi_5 &= 25^\circ \cdot \frac{\pi}{180^\circ} = \frac{5\pi}{36}; \end{aligned}$$

$$\begin{aligned} 4) \quad \varphi_1 &= 220^\circ \cdot \frac{\pi}{180^\circ} = \frac{11\pi}{9}, & \varphi_2 &= 400^\circ \cdot \frac{\pi}{180^\circ} = \frac{20\pi}{9}, \\ \varphi_3 &= 480^\circ \cdot \frac{\pi}{180^\circ} = \frac{8\pi}{3}, & \varphi_4 &= 570^\circ \cdot \frac{\pi}{180^\circ} = \frac{19\pi}{6}, \\ \varphi_5 &= 720^\circ \cdot \frac{\pi}{180^\circ} = 4\pi. \end{aligned}$$