

Zadatak 8. Odredi na brojevnoj kružnici sljedeće intervale realnih brojeva:

- 1) $\langle k\pi, \frac{\pi}{2} + k\pi \rangle, k \in \mathbf{Z};$
- 2) $\langle (2k-1)\frac{\pi}{4}, (4k-1)\frac{\pi}{8} \rangle, k \in \mathbf{Z};$
- 3) $\langle (4k-1)\frac{\pi}{8}, k\frac{\pi}{2} \rangle, k \in \mathbf{Z};$
- 4) $\langle k\frac{\pi}{2}, (4k+1)\frac{\pi}{8} \rangle, k \in \mathbf{Z}.$

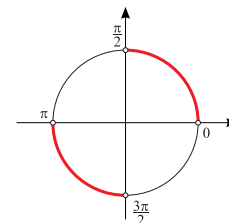
Rješenje.

1) $\langle k\pi, \frac{\pi}{2} + k\pi \rangle, k \in \mathbf{Z};$

$$k = 0 \quad \langle 0, \frac{\pi}{2} \rangle$$

$$k = 1 \quad \langle \pi, \frac{3\pi}{2} \rangle$$

$$k = 2 \quad \langle 2\pi, \frac{5\pi}{2} \rangle = \langle 0, \frac{\pi}{2} \rangle$$



2) $\langle (2k-1)\frac{\pi}{4}, (4k-1)\frac{\pi}{8} \rangle, k \in \mathbf{Z};$

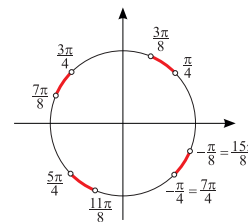
$$k = 0 \quad \langle -\frac{\pi}{4}, -\frac{\pi}{8} \rangle$$

$$k = 1 \quad \langle \frac{\pi}{4}, \frac{3\pi}{8} \rangle$$

$$k = 2 \quad \langle \frac{3\pi}{4}, \frac{7\pi}{8} \rangle$$

$$k = 3 \quad \langle \frac{5\pi}{4}, \frac{11\pi}{8} \rangle$$

$$k = 4 \quad \langle \frac{7\pi}{4}, \frac{15\pi}{8} \rangle = \langle -\frac{\pi}{4}, -\frac{\pi}{8} \rangle$$



3) $\langle (4k-1)\frac{\pi}{8}, k\frac{\pi}{2} \rangle, k \in \mathbf{Z};$

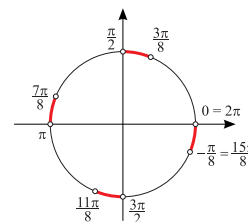
$$k = 0 \quad \langle -\frac{\pi}{8}, 0 \rangle$$

$$k = 1 \quad \langle \frac{3\pi}{8}, \frac{\pi}{2} \rangle$$

$$k = 2 \quad \langle \frac{7\pi}{8}, \pi \rangle$$

$$k = 3 \quad \langle \frac{11\pi}{8}, \frac{3\pi}{2} \rangle$$

$$k = 4 \quad \langle \frac{15\pi}{8}, 2\pi \rangle = \langle -\frac{\pi}{8}, 0 \rangle$$



$$4) \left\langle k\frac{\pi}{2}, (4k+1)\frac{\pi}{8} \right\rangle, k \in \mathbf{Z}$$

$$k = 0 \quad \left\langle 0, \frac{\pi}{8} \right\rangle$$

$$k = 1 \quad \left\langle \frac{\pi}{2}, \frac{5\pi}{8} \right\rangle$$

$$k = 2 \quad \left\langle \pi, \frac{9\pi}{8} \right\rangle$$

$$k = 3 \quad \left\langle \frac{3\pi}{2}, \frac{13\pi}{8} \right\rangle$$

$$k = 4 \quad \left\langle 2\pi, \frac{17\pi}{8} \right\rangle = \left\langle 0, \frac{\pi}{8} \right\rangle$$

