Zadatak 3. Odredi cijeli broj k tako da je $k \cdot \frac{\pi}{2} < t < (k+1) \cdot \frac{\pi}{2}$, za sljedeće točke $E(t)$: $E(10)$, $E(8)$, $E(2)$, $E(3.3)$, $E(\sqrt{33})$. Smjesti sve te točke na brojevnu kružnicu.

Rješenje.

$$k \cdot \frac{\pi}{2} < t < (k+1) \cdot \frac{\pi}{2} \quad \Big/ : \frac{\pi}{2}$$

$$k < \frac{t}{\frac{\pi}{2}} < k+1$$

$$k < \frac{2 \cdot t}{\pi} < k+1$$

$E(10)$

$$k < \frac{2 \cdot 10}{\pi} < k+1$$

$$k < 6.36 < k+1 \implies k = 6$$

$E(8)$

$$k < \frac{2 \cdot 8}{\pi} < k+1$$

$$k < 5.09 < k+1 \implies k = 5$$

$E(2)$

$$k < \frac{2 \cdot 2}{\pi} < k+1$$

$$k < 1.27 < k+1 \implies k = 1$$

$E(3.3)$

$$k < \frac{2 \cdot 3.3}{\pi} < k+1$$

$$k < 2.1 < k+1 \implies k = 2$$

$E(\sqrt{33})$

$$k < \frac{2 \cdot \sqrt{33}}{\pi} < k+1$$

$$k < 3.66 < k+1 \implies k = 3$$