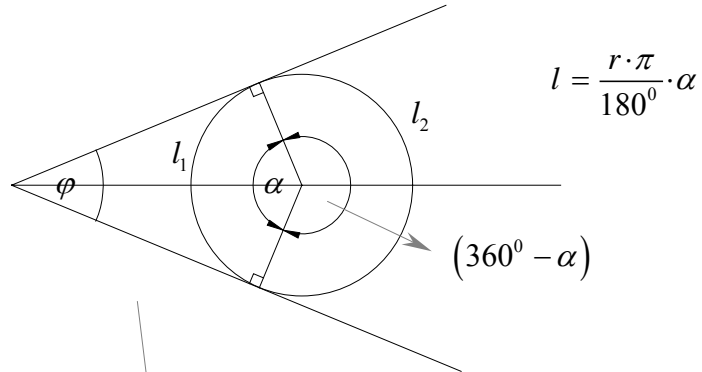


M-12. U šiljasti kut upisana je kružnica. Dirališta dijele kružnicu na lukove kojima se duljine odnose kao 3:5. Koliko stupnjeva ima taj kut?

- A.  $15^\circ$     B.  $25^\circ$     C.  $30^\circ$     D.  $45^\circ$     E.  $60^\circ$

$$\varphi = ?$$



$$l = \frac{r \cdot \pi}{180^\circ} \cdot \alpha$$

$$l_1 : l_2 = 3 : 5$$

$$\left( \frac{r \cdot \pi}{180^\circ} \cdot \alpha \right) : \left( \frac{r \cdot \pi}{180^\circ} \cdot (360^\circ - \alpha) \right) = 3 : 5$$

$$\frac{\frac{r \cdot \pi \cdot \alpha}{180^\circ}}{\frac{r \cdot \pi \cdot (360^\circ - \alpha)}{180^\circ}} = \frac{3}{5}$$

$$\frac{r \cdot \pi \cdot \alpha \cdot 180^\circ}{r \cdot \pi \cdot (360^\circ - \alpha) \cdot 180^\circ} = \frac{3}{5}$$

$$\frac{\alpha}{360^\circ - \alpha} = \frac{3}{5} \quad / \cdot 5 \cdot (360^\circ - \alpha)$$

$$5 \cdot \alpha = 3 \cdot (360^\circ - \alpha)$$

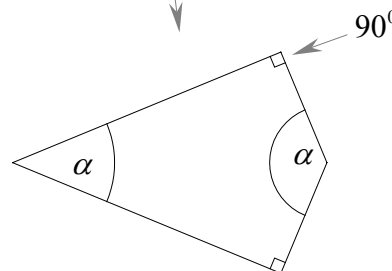
$$5\alpha = 1080^\circ - 3\alpha$$

$$5\alpha + 3\alpha = 1080^\circ$$

$$8\alpha = 1080^\circ \quad / : 8$$

$$\alpha = 135^\circ$$

izdvojimo četverokut:



$$\varphi + 90^\circ + 90^\circ + \alpha = 360^\circ$$

$$\varphi = 360^\circ - 90^\circ - 90^\circ - \alpha$$

$$\varphi = 180^\circ - \alpha$$

$$\varphi = 180^\circ - 135^\circ$$

$$\varphi = 45^\circ$$

Pogledaj M-13-iz 2003/04 isti zadatak malo drugačije rješen...