

Zadatak 16. U tetivnom je četverokutu zadano $b = 5.1$ cm, $c = 4$ cm, $d = 3.6$ cm i $R = 4.25$ cm. Koliki su njegovi kutovi?

Rješenje.

$$\begin{aligned} b &= 5.1 \text{ cm} \\ c &= 4 \text{ cm} \\ d &= 3.6 \text{ cm} \\ R &= 4.25 \text{ cm} \end{aligned}$$

$$\alpha, \beta, \gamma, \delta = ?$$

$$\cos \delta_1 = \frac{d}{2R} = 0.423529 \implies \delta_1 = 64^\circ 57'$$

$$\cos \gamma_1 = \frac{c}{2R} = 0.470588 \implies \gamma_1 = 61^\circ 54'$$

$$\delta = \delta_1 + \gamma_1 = 126^\circ 52''$$

$$\beta = 180^\circ - \delta = 180^\circ - 126^\circ 52'' = 53^\circ 08''$$

$$\cos \beta_1 = \frac{b}{2R} = 0.6 \implies \beta_1 = 53^\circ 7' 48''$$

$$\gamma = \beta_1 + \gamma_1 = 53^\circ 8' + 61^\circ 54' = 115^\circ 4'$$

$$\alpha = 180^\circ - \gamma = 180^\circ - 115^\circ 4' = 64^\circ 56'$$

