

Zadatak 3. Duljine dijagonala paralelograma jednake su 12.4 cm i 18.6 cm, a zatvaraju kut od $83^{\circ}15'$. Kolike su duljine stranice paralelograma?

Rješenje.

$$e = 12.4 \text{ cm}$$

$$f = 18.6 \text{ cm}$$

$$\varphi = 83^{\circ}15'$$

$$a, b = ?$$

$$\varphi' = 180^{\circ} - \varphi = 96^{\circ}45'$$

$$a^2 = \left(\frac{e}{2}\right)^2 + \left(\frac{f}{2}\right)^2 - 2 \cdot \frac{e}{2} \cdot \frac{f}{2} \cdot \cos \varphi'$$

$$a = 11.77 \text{ cm}$$

$$b^2 = \left(\frac{e}{2}\right)^2 + \left(\frac{f}{2}\right)^2 - 2 \cdot \frac{e}{2} \cdot \frac{f}{2} \cdot \cos \varphi$$

$$b = 10.55 \text{ cm.}$$