

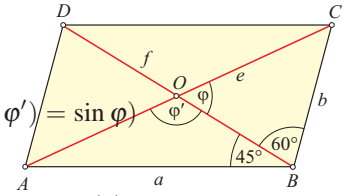
**Zadatak 8.** Dijagonala paralelograma dijeli njegov unutarnji kut na dijelove od  $45^\circ$  i  $60^\circ$ . U kojem su omjeru duljine stranica paralelograma?

*Rješenje.*

iz  $\triangle ABO$  imamo

$$\frac{a}{\sin \varphi'} = \frac{\frac{e}{2}}{\sin 45^\circ} \quad (\sin \varphi' = \sin(180^\circ - \varphi') = \sin \varphi)$$

$$\frac{a}{\sin \varphi} = \frac{\frac{e}{2}}{\sin 45^\circ} \implies \frac{a}{\sin \varphi} = \frac{e}{2 \cdot \frac{\sqrt{2}}{2}} \quad (1)$$



iz  $\triangle BCO$  imamo

$$\frac{b}{\sin \varphi} = \frac{\frac{e}{2}}{\sin 60^\circ} \implies \frac{b}{\sin \varphi} = \frac{e}{2 \cdot \frac{\sqrt{3}}{2}} \quad (2)$$

$$(1) : (2) \implies a : b = \sqrt{3} : \sqrt{2}.$$