

Zadatak 4. Kutovi trokuta u omjeru su $3 : 5 : 7$. Koliki je omjer duljina najdulje i najkraće stranice trokuta?

Rješenje. $\alpha : \beta : \gamma = 3 : 5 : 7$

$$\frac{c}{a} = ?$$

$$\alpha + \beta + \gamma = 180^\circ$$

$$\alpha = 3k, \quad \beta = 5k, \quad \gamma = 7k$$

$$3k + 5k + 7k = 180^\circ$$

$$15k = 180^\circ$$

$$k = 12^\circ$$

$$\alpha = 36^\circ, \quad \beta = 60^\circ, \quad \gamma = 84^\circ$$

$$\frac{c}{a} = \frac{\sin \gamma}{\sin \alpha} = \frac{\sin 84^\circ}{\sin 36^\circ} = 1.69$$