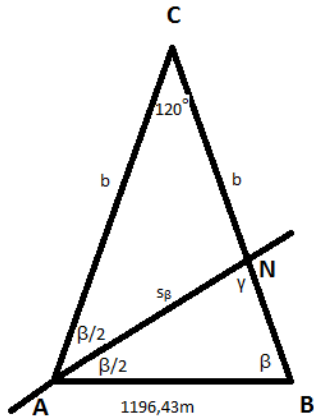


11. Strahinjčica je [planina](#) u [Hrvatskom zagorju](#) u čijem se južnom podnožju smjestio grad Krapina. Rješenje sljedećeg zadatka otkrit će ti nadmorsku visinu najvišeg vrha Sušec.

Zadan je jednakokračan trokut čija je osnovica duljine 1196.43 m, a kut nasuprot osnovice veličine  $120^\circ$ . Izračunaj duljinu simetrale kuta uz osnovicu. (3.R)

(autor zadatka: Ana Tušek, 3.a razred)

Rješenje:



$$\alpha = 120^\circ$$

$$a = 1196.43 \text{ m}$$

$$s_\beta = ?$$

$$\beta = \frac{180^\circ - \alpha}{2} = 30^\circ$$

$$\gamma = 180^\circ - \left( \beta + \frac{\beta}{2} \right) = 135^\circ$$

$$\frac{a}{\sin \alpha} = \frac{s_\beta}{\sin \beta} \Rightarrow s_\beta = \frac{a \cdot \sin \beta}{\sin \gamma} = 846 \text{ m}$$

**Visina Strahinjčice je 846 m.**

Krapina is situated at the southern base of Strahinjčica, a mountain in Hrvatsko Zagorje. The solution of the following task will reveal the sea level of Strahinjčica's highest point, Sušec.

You are given an isosceles triangle with a base of 1196m and the angle opposite to the base is  $120^\circ$ . Calculate the length of the angle bisector to the base.

(3G)

(author: Ana Tušek, 3a grade)

Solution:

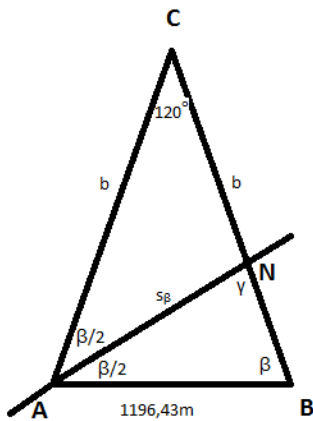
$$\alpha = 120^\circ$$

$$a = 1196.43 \text{ m}$$

$$s_\beta = ?$$

$$\beta = \frac{180^\circ - \alpha}{2} = 30^\circ$$

$$\gamma = 180^\circ - \left(\beta + \frac{\beta}{2}\right) = 135^\circ$$



$$\frac{a}{\sin \alpha} = \frac{s_\beta}{\sin \beta} \Rightarrow s_\beta = \frac{a \cdot \sin \beta}{\sin \gamma} = 846 \text{ m}$$

The height of Strahinjčica is 846m.

Strahinjčica ist ein Berg im Kroatischen Zagorje, in dessen südlicher Fußzeile Krapina liegt. Die Lösung der folgenden Aufgabe errät dir die Höhe des höchsten Gipfels Sušec.

Die Basis des gleichschenkligen Dreiecks beträgt 1196.43 m, und der Winkel der gegenüberliegenden Basis ist  $120^\circ$ .

Wie lang ist die Symetrale des Basis-Winkels?

(3. Kl.)

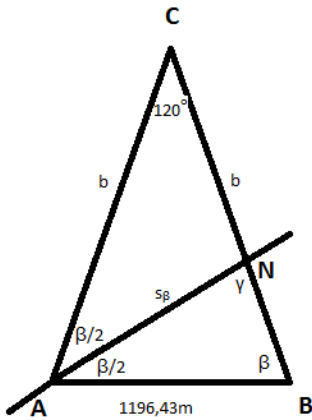
(Autorin: Ana Tušek, Klasse 3A)

Lösung:

$$\alpha = 120^\circ$$

$$a = \underline{1196.43 \text{ m}}$$

$$s_\beta = ?$$



$$\beta = \frac{180^\circ - \alpha}{2} = 30^\circ$$

$$\gamma = 180^\circ - \left( \beta + \frac{\beta}{2} \right) = 135^\circ$$

$$\frac{a}{\sin \alpha} = \frac{s_\beta}{\sin \beta} \Rightarrow s_\beta = \frac{a \cdot \sin \beta}{\sin \gamma} = 846 \text{ m}$$

**Die Höhe des Strahinjčica-Gebirge ist 846m.**