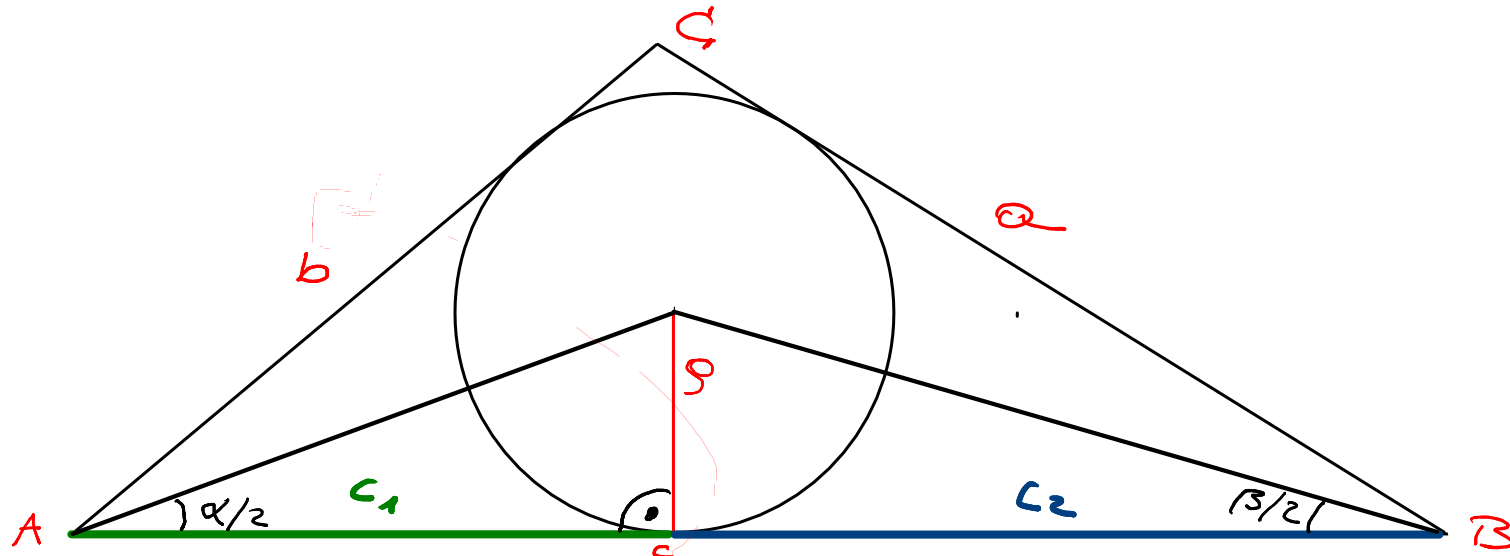


Der Inkreisradius

$$S = \frac{H_{\Delta}}{3} \quad \wedge \quad S = \frac{a+b+c}{2}$$



$$C = c_1 + c_2 \quad \wedge \quad \begin{cases} \tan(\alpha/2) = \frac{r}{c_1} \\ \tan(\beta/2) = \frac{r}{c_2} \end{cases}$$

$$\Rightarrow c_1 = \frac{r}{\tan \alpha/2}$$

$$\rightarrow c_2 = \frac{r}{\tan \beta/2}$$

$$\Rightarrow C = r \left(\frac{1}{\tan \alpha/2} + \frac{1}{\tan \beta/2} \right)$$

$$\Rightarrow r = \frac{C}{\frac{1}{\tan \alpha/2} + \frac{1}{\tan \beta/2}}$$