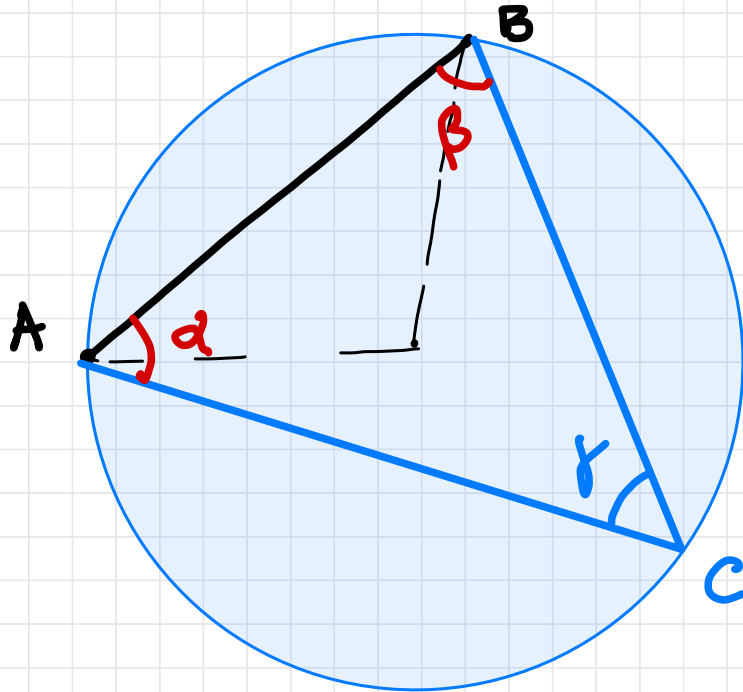


# TEOREMA DEI SENI



M4020

# DAL TEOREMA DELLA CORDA



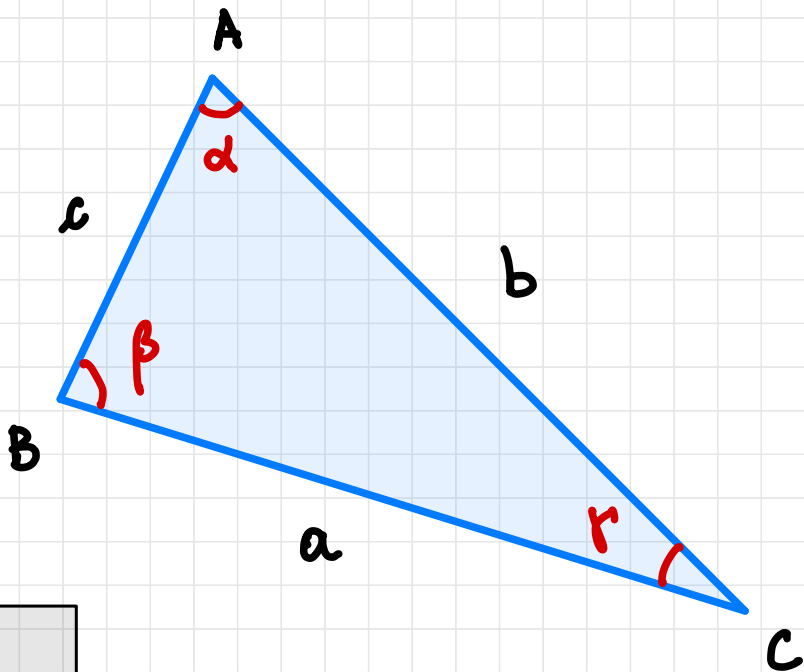
$$\overline{AB} = 2r \cdot \text{sen } \gamma$$

$$\downarrow$$
$$\frac{\overline{AB}}{\text{sen } \gamma} = 2r$$

$$\overline{AC} = 2r \text{ sen } \beta \rightarrow 2r = \frac{\overline{AC}}{\text{sen } \beta}$$

$$\overline{BC} = 2r \text{ sen } \alpha$$
$$2r = \frac{\overline{BC}}{\text{sen } \alpha}$$

$$2r = \frac{\overline{AB}}{\sin \gamma} = \frac{\overline{AC}}{\sin \beta} = \frac{\overline{BC}}{\sin \alpha}$$



$$\frac{a}{\sin \alpha} = \frac{b}{\sin \beta} = \frac{c}{\sin \gamma}$$

**TEOREMA DEI SENI**

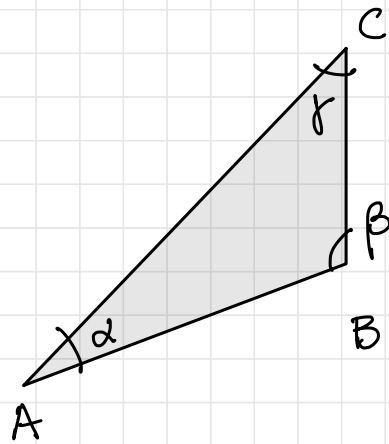
# ESERCIZIO

DATI

$$\alpha = 30^\circ$$

$$\beta = 105^\circ$$

$$\overline{BC} = 6$$



TEOREMA DEI SENI

$$\frac{\overline{AB}}{\sin \gamma} = \frac{\overline{BC}}{\sin \alpha} = \frac{\overline{AC}}{\sin \beta}$$

$$\overline{AC} = \frac{\overline{BC}}{\sin \alpha} \cdot \sin \beta$$

$$\overline{AC} = \frac{6}{\frac{1}{2}} \cdot \sin 105^\circ = 11.6$$

$$\frac{\overline{AB}}{\sin \gamma} = \frac{\overline{BC}}{\sin \alpha}$$

$$\text{ma } \gamma = 180^\circ - \alpha - \beta = 180^\circ - 30^\circ - 105^\circ = 45^\circ$$

$$\overline{AB} = \frac{\overline{BC}}{\sin \alpha} \cdot \sin \gamma = \frac{6}{\frac{1}{2}} \cdot \frac{\sqrt{2}}{2} = 6\sqrt{2}$$

# IL CASO DI UNA DOPPIA SOLUZIONE