

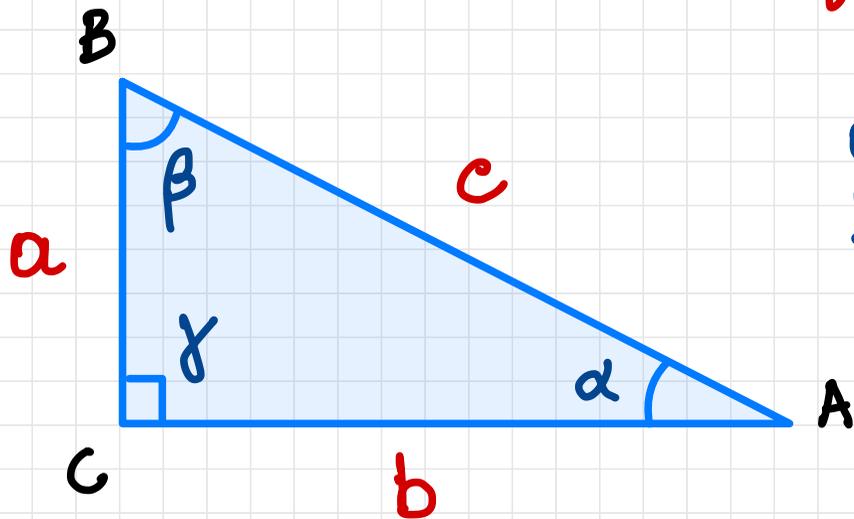
# TRIANGOLI RETTANGOLI



M4015

# IL TRIANGOLO RETTANGOLO

$$\gamma = 90^\circ$$



$$a = c \cdot \text{sen } \alpha$$

$$b = c \cdot \text{sen } \beta$$

IL SENO DELL'ANGOLO  
DI FRONTE

$$a = c \cdot \text{cos } \beta$$

$$b = c \cdot \text{cos } \alpha$$

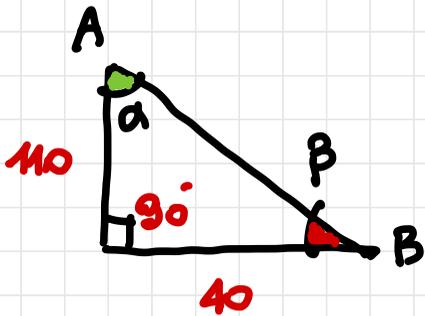
IL COSENO DELL'ANGOLO  
ADIACENTE

## DIVIDO I CATETI

$$\frac{a}{b} = \frac{\cancel{c} \cdot \sin \alpha}{\cancel{c} \cos \alpha} \rightarrow \frac{a}{b} = \operatorname{tg} \alpha = \frac{\text{CATETO DI FRONTE}}{\text{CATETO ADIACENTE}}$$

$$\frac{b}{a} = \frac{\cancel{c} \cdot \sin \beta}{\cancel{c} \cos \beta} \rightarrow \frac{b}{a} = \operatorname{tg} \beta$$

ESERCIZIO 1 : DUE CATETI DEVO TROVARE ipot,  $\alpha$ ,  $\beta$



$$\begin{aligned} \overline{AB} &= \sqrt{110^2 + 40^2} = \sqrt{13700} = \sqrt{137 \cdot 100} = \\ &= 10\sqrt{137} \end{aligned}$$

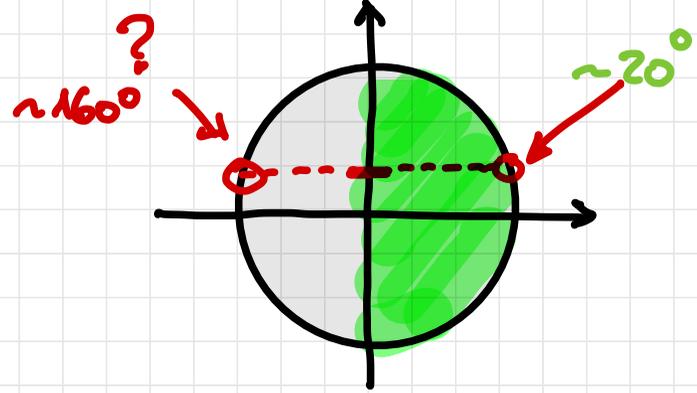
$$\alpha: 40 = 10\sqrt{137} \sin \alpha \rightarrow \sin \alpha = \frac{40}{10\sqrt{137}}$$

$$= 0.3417$$

$$\rightarrow \sin \alpha = 0.3417$$

~~$160^\circ + 90^\circ + \dots > 180^\circ$~~  !

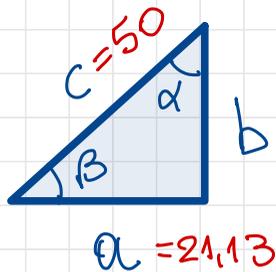
SUPERA  $180^\circ$



$$\beta = 180^\circ - 90^\circ - 20^\circ = 70^\circ$$

$$\beta = 90^\circ - 20^\circ = 70^\circ$$

EX 2. CATETO E IPOTENUSA , SERVE CATETO2,  $\alpha$ ,  $\beta$



$$c \sin \alpha = a$$

$$\sin \alpha = \frac{21,13}{50}$$

$$\rightarrow \alpha \sim 25^\circ$$

$$\rightarrow \beta = 90^\circ - 25^\circ = 65^\circ$$

$$b = c \cdot \sin 65^\circ = 50 \cdot \sin 65^\circ = 45,3$$

