

TRIGONOMETRIČNE FUNKCIJE

V pravokotnem trikotniku izračunaj dolžino hipotenuze, sinus, kosinus, tangens in kota ostrih kotov.

$$a = 5,5 \text{ cm}$$

$$b = 7,2 \text{ cm}$$

$$c = ?$$

$$\sin \alpha = ?$$

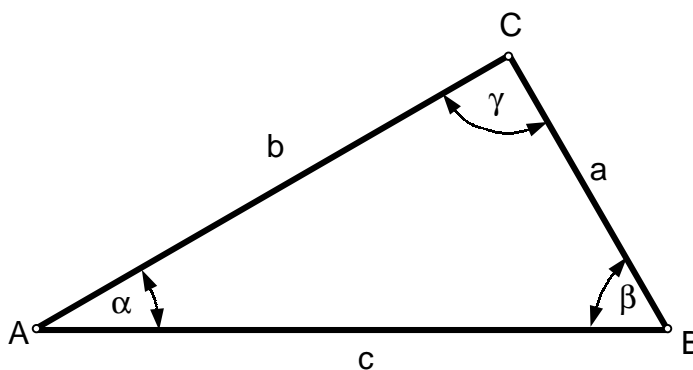
$$\sin \beta = ?$$

$$\cos \alpha = ?$$

$$\cos \beta = ?$$

$$\tan \alpha = ?$$

$$\tan \beta = ?$$



Izračun hipotenuze:

$$c^2 = a^2 + b^2$$

$$c = \sqrt{a^2 + b^2} = \sqrt{5,5^2 + 7,2^2} = \sqrt{82,09} = 9,06 \text{ cm}$$

Izračun trigonometričnih funkcij:

$$\sin \alpha = \frac{a}{c} = \frac{5,5}{9,06} = 0,607 \quad \Rightarrow \quad \alpha = \arcsin 0,607 = 37,3775^\circ$$

Rezultati:

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|-----|-------------------------|---------------|--------------------------|
| 1.) | $\sin \alpha = 0,607$ | \Rightarrow | $\alpha = 37,3775^\circ$ |
| 2.) | $\sin \beta = 0,7947$ | \Rightarrow | $\beta = 52,6271^\circ$ |
| 3.) | $\cos \alpha = 0,7947$ | \Rightarrow | $\alpha = 37,3729^\circ$ |
| 4.) | $\cos \beta = 0,607$ | \Rightarrow | $\beta = 52,6225^\circ$ |
| 5.) | $\tan \alpha = 0,76389$ | \Rightarrow | $\alpha = 37,3758^\circ$ |
| 6.) | $\tan \beta = 1,3091$ | \Rightarrow | $\beta = 52,6242^\circ$ |