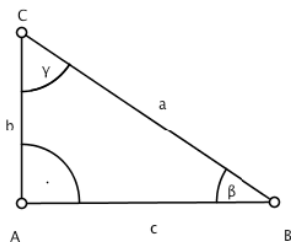


## Lösung Beispiel 691.)

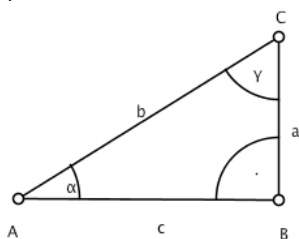
a)



$$\sin(\beta) = \frac{b}{a} = \frac{76}{95} \quad \rightarrow \quad \beta = \sin^{-1}\left(\frac{76}{95}\right) \approx 53,13^\circ \quad \gamma = 90^\circ - 53,13^\circ \approx 36,87^\circ$$

$$c = \sqrt{a^2 - b^2} = 57$$

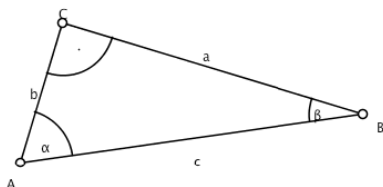
b)



$$\tan(\alpha) = \frac{a}{c} = \frac{3,5}{8,4} \quad \rightarrow \quad \alpha = \tan^{-1}\left(\frac{3,5}{8,4}\right) \approx 22,62^\circ \quad \gamma = 90^\circ - 22,62^\circ \approx 67,38^\circ$$

$$b = \sqrt{a^2 + c^2} = 9,1$$

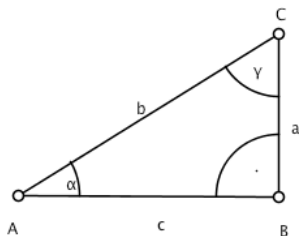
c)



$$\sin(\alpha) = \frac{a}{c} = \frac{8,4}{11,6} \quad \rightarrow \quad \alpha = \sin^{-1}\left(\frac{8,4}{11,6}\right) \approx 46,40^\circ \quad \beta = 90^\circ - 46,40^\circ \approx 43,60^\circ$$

$$b = \sqrt{c^2 - a^2} = 8$$

d)



$$\cos(\alpha) = \frac{c}{b} = \frac{13,5}{15,9} \quad \rightarrow \quad \alpha = \cos^{-1}\left(\frac{13,5}{15,9}\right) \approx 31,89^\circ \quad \gamma = 90^\circ - 31,89^\circ \approx 58,11^\circ$$

$$a = \sqrt{b^2 - c^2} = 8,4$$

