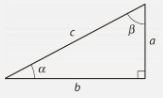
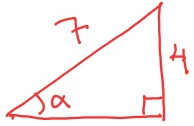
Suorakulmaisen kolmion trigonometria

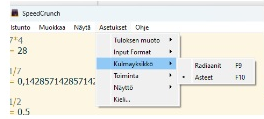
$a^2 + b^2 = c^2$ (Pythagoraan lause)	
$A = \frac{1}{2}ab$	
$\beta = 90° - \alpha$	
$\sin\alpha = \frac{a}{c}$	
$\cos\alpha = \frac{b}{c}$	
$\tan\alpha = \frac{a}{b}$	

Esim. Ratkaise kulman suuruus.



$\sin\alpha = \frac{4}{7}$

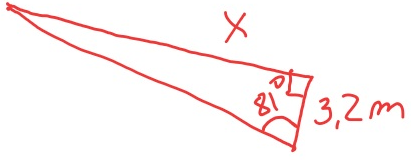
$\alpha = \underbrace{\arcsin}_{\sin^{-1}}\left(\frac{4}{7}\right) = 34{,}8°$



!

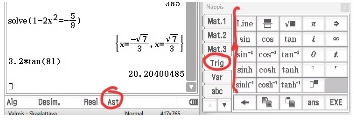
arcsin(4/7)
= 34,849004579046484411 48

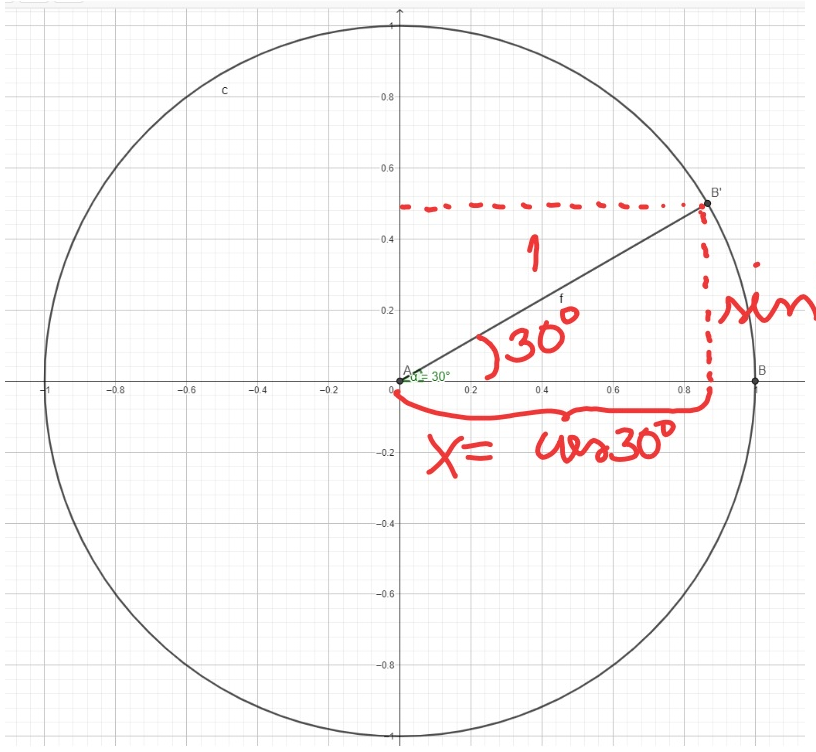
Esim. Ratkaise sivun pituus x.



$\tan 81° = \frac{x}{3{,}2\,m}$ (kerrotaan ristiin)

$x = 3{,}2\,m \cdot \tan 81° = 20{,}2\,m$





$\sin 30° = \frac{1}{2}$, $\cos 30° = 0{,}86$

$\sin 30° = \frac{y}{1}$

$\cos 30° = \frac{x}{1}$