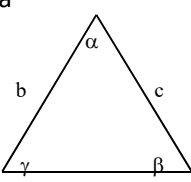
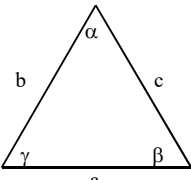
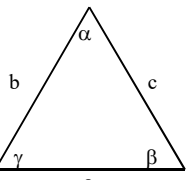
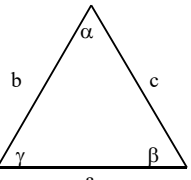
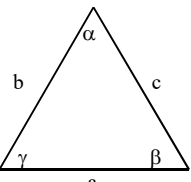


Računanje trokuta iz dviju mjerenih duljina stranica i kuta između njih

Tangensov poučak

Trigonometrijski obrazac br. 14 - tan

Računanje trokuta iz dviju mjerenih duljina stranica i kuta između njih										
Skica	Mjerene veličine α, b, c			Računate veličine a, β, γ			Kontrola $\alpha + \beta + \gamma = 180^\circ$			
				$\frac{(\beta + \gamma)}{2} = 90^\circ - \frac{\alpha}{2}$			$\beta = \frac{\beta + \gamma}{2} + \frac{\beta - \gamma}{2}$			
				$\tan \frac{(\beta - \gamma)}{2} = \frac{b - c}{b + c} \cot \frac{\alpha}{2}$			$\gamma = \frac{\beta + \gamma}{2} - \frac{\beta - \gamma}{2}$			
				$a^2 = b^2 + c^2 - 2bc \cos \alpha$			* $a = (b/\sin \beta) \sin \alpha$ $a = (c/\sin \gamma) \sin \alpha$			
AS	+/-	o	'	"					ASlaviček	
$\arctan =$ inverzna funkcija tangensa $\frac{(\beta + \gamma)}{2} = 90^\circ - \frac{\alpha}{2}$ $\tan \frac{(\beta - \gamma)}{2} = \frac{b - c}{b + c} \cot \frac{\alpha}{2}$	α	51	34	42	b	171,65		$\alpha/2$		
	β				c	169,25	B	$\cot(\alpha/2)$		
	γ				a			$b-c$		
	Σ							$b+c$		
	$(\beta+\gamma)/2$					Kontrola*		A	$(b-c)/(b+c)$	
	$(\beta-\gamma)/2$					a			$\arctan(A * B)$	
	α	51	31	65	b	169,26		$\alpha/2$		
	β				c	167,58	B	$\cot(\alpha/2)$		
	γ				a			$b-c$		
	Σ							$b+c$		
	$(\beta+\gamma)/2$					Kontrola		A	$(b-c)/(b+c)$	
	$(\beta-\gamma)/2$					a			$\arctan(A * B)$	
	α	69	54	13	b	176,45		$\alpha/2$		
	β				c	179,35	B	$\cot(\alpha/2)$		
	γ				a			$b-c$		
	Σ							$b+c$		
	$(\beta+\gamma)/2$					Kontrola		A	$(b-c)/(b+c)$	
	$(\beta-\gamma)/2$					a			$\arctan(A * B)$	
	α	81	34	52	b	214,36		$\alpha/2$		
	β				c	217,68	B	$\cot(\alpha/2)$		
	γ				a			$b-c$		
	Σ							$b+c$		
	$(\beta+\gamma)/2$					Kontrola		A	$(b-c)/(b+c)$	
	$(\beta-\gamma)/2$					a			$\arctan(A * B)$	
	α	94	45	31	b	115,34		$\alpha/2$		
	β				c	129,69	B	$\cot(\alpha/2)$		
	γ				a			$b-c$		
	Σ							$b+c$		
	$(\beta+\gamma)/2$					Kontrola		A	$(b-c)/(b+c)$	
	$(\beta-\gamma)/2$					a			$\arctan(A * B)$	

Napomena: predznak vrijednosti $1/2(\beta-\gamma)$ bit će (+) ako je $b > c$, a (-) ako je $b < c$.

Armando Slaviček