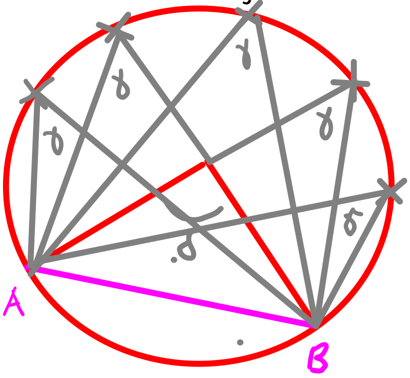
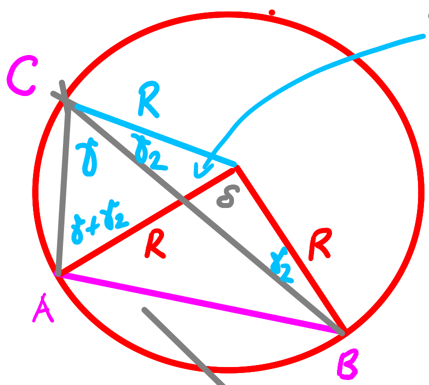
Matematika 2, 8. travnja 2021.

Teorem o središnjem i obodnom kutu, bis

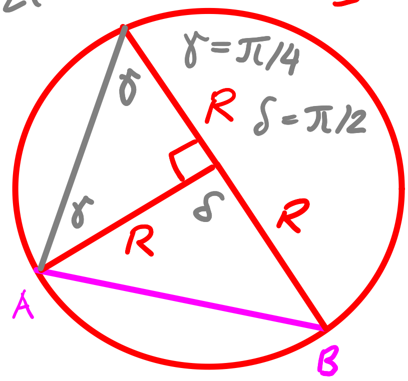


$\delta = 2\gamma$

δ – središnji kut

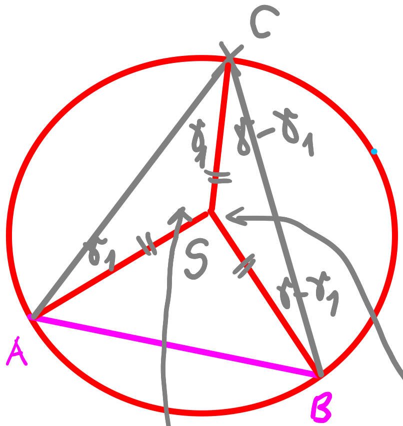


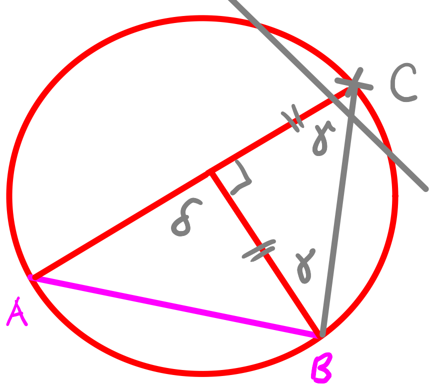
$\pi - 2(\gamma + \gamma_2) \Rightarrow \delta = \cancel{\pi} - 2\cancel{\gamma_2} - (\cancel{\pi} - 2(\gamma + \cancel{\gamma_2})) = 2\gamma$



$\gamma = \pi/4$

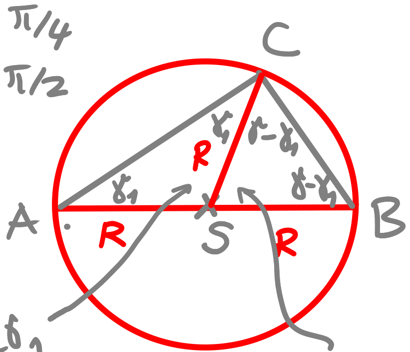
$\delta = \pi/2$





$\gamma = \pi/4$

$\delta = \pi/2$



$\pi - 2\gamma_1$

$\pi - 2(\gamma - \gamma_1)$

$\triangle ASC \quad \sphericalangle ASC = \pi - 2\gamma_1$

$\triangle CSB \quad \sphericalangle CSB = \pi - 2(\gamma - \gamma_1)$

$$\delta + \cancel{\pi} - 2(\gamma - \cancel{\gamma_1}) + \cancel{\pi} - 2\cancel{\gamma_1} = 2\cancel{\pi}$$

$$\delta - 2\gamma = 0$$

$\sphericalangle ASB = \pi$

$\parallel$

$\pi - 2\cancel{\gamma_1} + \pi - 2(\gamma - \cancel{\gamma_1})$

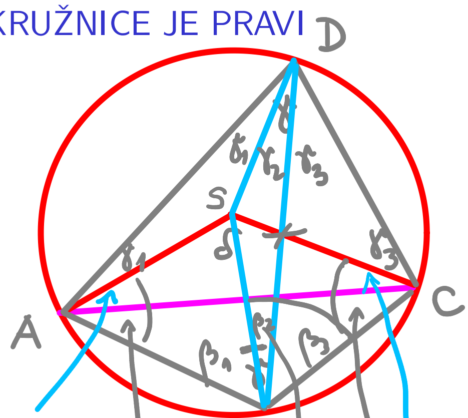
$\pi = \sphericalangle ASB = 2\pi - 2\gamma$

$\pi = 2\pi - 2\gamma \;/\; +2\gamma - \pi$

$2\gamma = \pi \Rightarrow \gamma = \pi/2$

Talesov teorem o obodnim kutevima nad promjerom

SVAKI OBODNI KUT NAD PROMJEROM KRUŽNICE JE PRAVI



$\frac{\pi}{2} - \gamma$

$\frac{\pi}{2} - \gamma$

$\beta_1 - (\frac{\pi}{2} - \gamma)$

γ_2

$\beta_2 + \beta_3 - (\frac{\pi}{2} - \gamma)$

$\gamma + \bar{\gamma} = \pi$

ABCD TETIVNI ČETVEROKUT

$\beta_2 = \gamma_2$

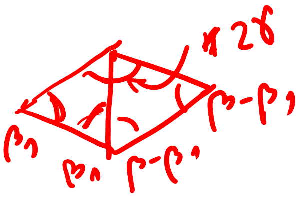
$\delta = 2\gamma$

$\triangle ABC$

$\pi = \beta_1 - \frac{\pi}{2} + \gamma + \beta_2 + \beta_3 - \frac{\pi}{2} + \gamma + \beta$

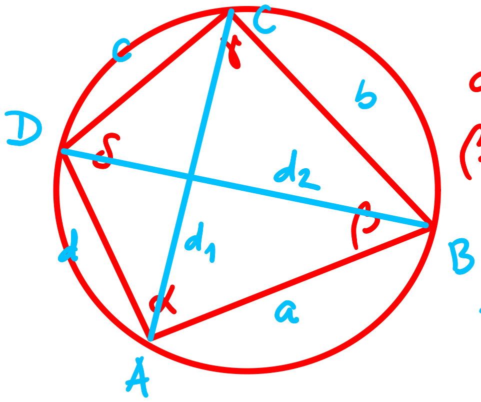
$2\pi = \underbrace{\beta_1 + \beta_2 + \beta_3}_{\beta} + \beta + 2\gamma$

$2\pi = 2\beta + 2\gamma \Rightarrow \boxed{\beta + \gamma = \pi}$



$2\gamma + \beta - \beta_1 + \beta + \beta_1$

$2\gamma + 2\beta = 2\pi$



$\alpha + \gamma = \pi$

$\beta + \delta = \pi$

$$d_1 \cdot d_2 = a \cdot c + b \cdot d$$

PTOLOMEJEV TEOREM