

# ВЕНБАНАЕ

231

$$\alpha) \alpha = 61^{\circ} 23' 50''$$

$$\beta = 5^{\circ} 18' 10''$$

$$\varphi = 180^{\circ} - (\alpha + \beta)$$

$$\varphi = 180^{\circ} - (61^{\circ} 23' 50'' + 5^{\circ} 18' 10'') =$$

$$= 180^{\circ} - (66^{\circ} 41' 60'') =$$

$$= 180^{\circ} - 66^{\circ} 42' =$$

$$= 179^{\circ} 60' - 66^{\circ} 42' =$$

$$= 113^{\circ} 18'$$

$$\Gamma) \alpha = 4020' \quad \beta = 4980'$$

$$1^{\circ} = 60'$$

$$\alpha = 4020' : 60 = 67^{\circ}$$

$$\beta = 4980' : 60 = 83^{\circ}$$

$$\varphi = 180^{\circ} - (\alpha + \beta) = 180^{\circ} - (67^{\circ} + 83^{\circ})$$

$$= 180^{\circ} - 150^{\circ} = 30^{\circ}$$

232

$$\beta) \alpha = 92^{\circ} 14' 15''$$

$$\alpha_1 = 180^{\circ} - \alpha = 180^{\circ} - (92^{\circ} 14' 15'')$$

$$\beta_1 = 93^{\circ} 14' 16''$$

$$\alpha_1 = 179^{\circ} 59' 60'' - 92^{\circ} 14' 15''$$

$$\alpha_1 = 87^{\circ} 45' 45''$$

$$\beta = 180^{\circ} - \beta_1$$

$$\beta = 180^{\circ} - 93^{\circ} 14' 16''$$

$$\beta = 179^{\circ} 59' 60'' - 93^{\circ} 14' 16''$$

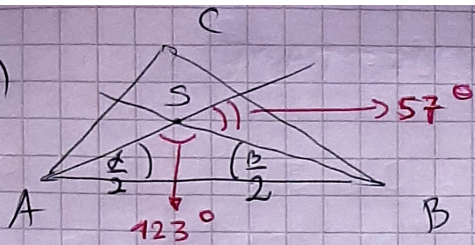
$$\beta = 86^{\circ} 45' 44''$$

$$\varphi = 180^{\circ} - (\alpha + \beta) = 180^{\circ} - (92^{\circ} 14' 15'' + 86^{\circ} 45' 44'') =$$

$$= 180^{\circ} - (178^{\circ} 59' 59'') = 179^{\circ} 59' 60'' - 178^{\circ} 59' 59'' =$$

$$\varphi = 1^{\circ} 1''$$

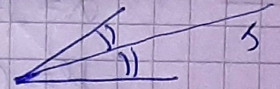
233 a)



$$\begin{aligned} \angle ASB &= 180^\circ - \left( \frac{A}{2} + \frac{B}{2} \right) \\ &= 180^\circ - (23 + 34)^\circ \\ &= 180^\circ - 57^\circ = 123^\circ \end{aligned}$$

~~Трапи~~ Трапи се оштар угао :  $180^\circ - 123^\circ = 57^\circ$

⊕ СУМЕТРАНА УГЛА  
ДЕЛУ УГАО НА  
2 ЈЕДНАКА УГЛА



230

$$\alpha = \beta - 24^\circ$$

$$\beta = \beta + 15^\circ$$

$$\alpha + \beta + \beta = 180^\circ$$

$$\beta - 24^\circ + \beta + \beta + 15^\circ = 180^\circ$$

$$3 \cdot \beta - 9^\circ = 180^\circ$$

$$3 \cdot \beta = 189^\circ$$

$$\beta = 63^\circ$$

$$\alpha = \beta - 24^\circ$$

$$\alpha = 63^\circ - 24^\circ = 39^\circ$$

$$\beta = \beta + 15^\circ = 63^\circ + 15^\circ = 78^\circ$$

242

$$\alpha = 52^\circ$$

$$\beta : \beta = 1 : 3$$

$$\rightarrow \beta = k$$

$$\beta = 3k$$

$$\alpha + \beta + \beta = 180^\circ$$

$$52^\circ + k + 3k = 180^\circ$$

$$52^\circ + 4 \cdot k = 180^\circ$$

$$4 \cdot k = 128^\circ$$

$$k = 32^\circ$$

$$\beta = k = 32^\circ$$

$$\beta = 3k = 3 \cdot 32 = 96^\circ$$

243

$$\alpha + \beta = 111^\circ 37'$$

$$\beta + \gamma = 137^\circ 11'$$

$$\beta = ?$$

$$(\alpha + \beta) + (\beta + \gamma) = 111^\circ 37' + 137^\circ 11'$$

$$\alpha + \beta + \beta + \gamma = 248^\circ 48'$$

$$\underbrace{\alpha + \beta + \gamma}_{180^\circ} + \beta = 248^\circ 48'$$

$$180^\circ + \beta = 248^\circ 48'$$

$$\beta = 248^\circ 48' - 180^\circ$$

$$\boxed{\beta = 68^\circ 48'}$$