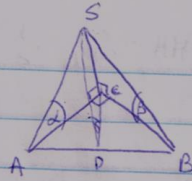


3.28
9 (1)



$$\sin \alpha = \frac{SC}{AS} \quad \sin \beta = \frac{SC}{SB}$$

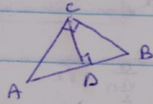
: $\triangle ASB$ proyeksi @ 2D

$$AB^2 = AS^2 + SB^2 - 2AS \cdot SB \cos \gamma$$

$$AC^2 + CB^2 = AC^2 + SC^2 + CB^2 + SC^2 - 2AS \cdot SB \cdot \cos \gamma$$

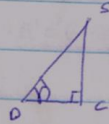
$$2 \cdot SC^2 = \frac{2SC^2}{AS \cdot SB} = \frac{SC}{AS} \cdot \frac{SC}{SB} = \sin \alpha \cdot \sin \beta$$

(2)



$$\frac{AC \cdot CB}{2} = \frac{CD \cdot AB}{2} \rightarrow CD = \frac{AC \cdot CB}{AB}$$

$$AD = \sqrt{AC^2 - CD^2} \quad DB = \sqrt{CB^2 - CD^2}$$



. D \rightarrow proyeksi SD! CD proyeksi, proyeksi 3 axis

$$\tan \gamma = \frac{SC}{DC} = \frac{SC}{\frac{AC \cdot CB}{AB}} = \frac{SC \cdot AB}{AC \cdot CB}$$

~~tan gamma~~

$$\tan \alpha = \frac{SC}{AC} \rightarrow AC = \frac{SC}{\tan \alpha}$$

$$\tan \beta = \frac{SC}{CB} \rightarrow CB = \frac{SC}{\tan \beta}$$

$$\tan \gamma = \frac{SC \cdot AB}{\frac{SC}{\tan \alpha} \cdot \frac{SC}{\tan \beta}} = \frac{SC \cdot \sqrt{AC^2 + CB^2}}{\frac{SC^2}{\tan \alpha \tan \beta}} =$$

$$= \frac{SC \sqrt{\frac{SC^2}{\tan^2 \alpha} + \frac{SC^2}{\tan^2 \beta}}}{\frac{SC^2}{\tan \alpha \tan \beta}} = \frac{SC}{\tan \alpha \tan \beta} \sqrt{\tan^2 \alpha + \tan^2 \beta}$$

$$\tan \gamma = \sqrt{\tan^2 \alpha + \tan^2 \beta}$$