

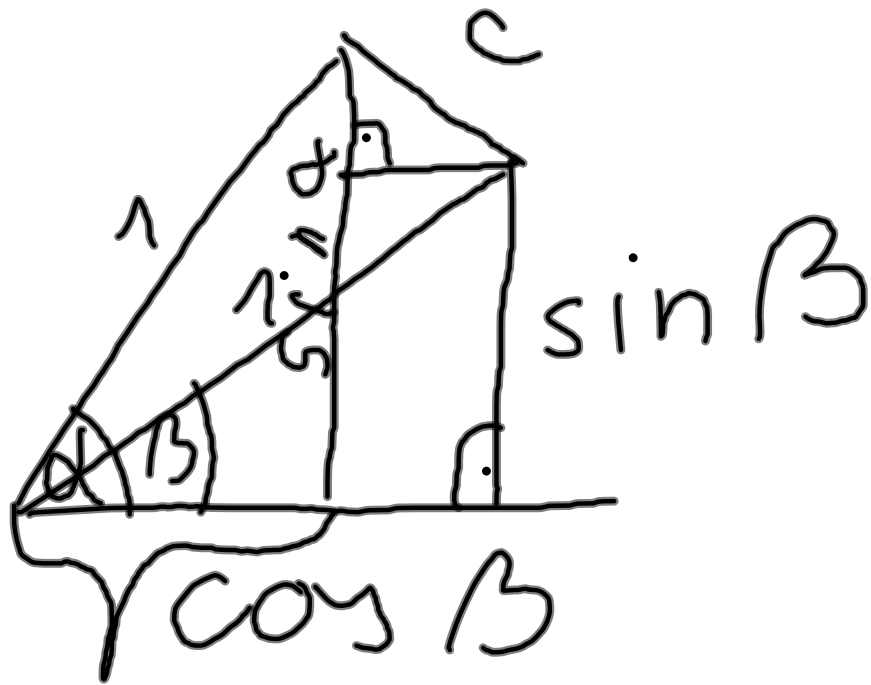
$$\sin \alpha = \frac{a}{c}$$

$$\cos \alpha = \frac{b}{c}$$

$$\frac{a^2}{c^2} + \frac{b^2}{c^2} =$$

$$a^2 + b^2 - c^2$$

$$\frac{a^2 + b^2}{c^2} = 1$$



$\cos \alpha$

$$c^2 = 1^2 + 1^2 - 2 \cdot 1 \cdot 1 \cdot \cos(\alpha - \beta)$$

$$c^2 = (\sin \alpha - \sin \beta)^2 + (\cos \beta - \cos \alpha)^2$$

$$- 2 \cdot \cos(\alpha - \beta) = -2 \cdot \sin \alpha \cdot \sin \beta - 2 \cdot \frac{\cos \alpha \cdot \cos \beta}{\cos \beta}$$

$$\cos(\alpha \mp \beta) = \underline{\cos \alpha \cdot \cos \beta} \pm \sin \alpha \cdot \sin \beta$$

$$\sin(\alpha \mp \beta) = \cos\left(\left(\frac{\pi}{2} - \alpha\right) \pm \beta\right) =$$

$$= \cos\left(\frac{\pi}{2} - \alpha\right) \cdot \cos \beta \mp \sin\left(\frac{\pi}{2} - \alpha\right) \cdot \sin \beta =$$

$$= \sin \alpha \cdot \cos \beta \mp \cos \alpha \cdot \sin \beta$$

$$\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$$

$$\sin 2\alpha = 2 \sin \alpha \cdot \cos \alpha$$

$$\cos^2 x + \sin^2 x = 1$$

$$2 \cos^2 x + \sin^2 x - \cos^2 x = 1$$

$$2 \cos^2 x - \cos 2x = 1$$

$$2 \cos^2 x = 1 + \cos 2x$$

$$\cos x = \sqrt{\frac{1 + \cos 2x}{2}}$$

$$\cos \frac{\alpha}{2} = \sqrt{\frac{1 + \cos \alpha}{2}}$$

$$\cos^2 x + \sin^2 x = 1$$

$$\sin \frac{\alpha}{2} = \sqrt{\frac{1 - \cos \alpha}{2}}$$