

2.10
2

$$\cos \alpha + \cos \beta = \sin \gamma$$

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

$$2 \cos \frac{\alpha+\beta}{2} \cos \frac{\alpha-\beta}{2} = 2 \sin \frac{\alpha+\beta}{2} \cos \frac{\alpha+\beta}{2}$$

$$2 \cos \frac{\alpha+\beta}{2} \left[\cos \frac{\alpha-\beta}{2} - \sin \frac{\alpha+\beta}{2} \right] = 0$$

$$\downarrow$$
$$\frac{\alpha+\beta}{2} = 90$$

$$\alpha+\beta = 180$$

Winkelsumme Kd

$$\cos \frac{\alpha-\beta}{2} = \cos \left(90 - \frac{\alpha+\beta}{2} \right)$$

$$\downarrow$$
$$\frac{\alpha-\beta}{2} = 90 - \frac{\alpha+\beta}{2}$$

$$\boxed{\alpha = 90^\circ}$$

$$\rightarrow \frac{\alpha-\beta}{2} = -90 + \frac{\alpha+\beta}{2}$$

$$\boxed{90 = \beta}$$