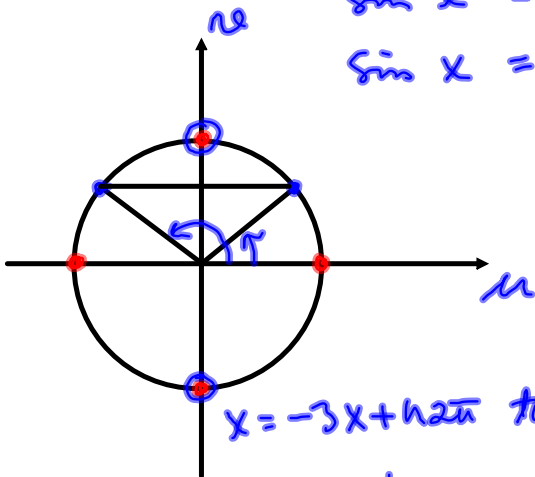


esim

$$-\sin 3x = \sin x$$

$$\sin x = -\sin 3x$$

$$\sin x = \sin(-3x)$$



$$x = -3x + n2\pi \quad \text{tai} \quad x = \pi - (-3x) + n2\pi$$

$$4x = n2\pi \quad | :4 \quad \text{tai} \quad -2x = \pi + n2\pi \quad | :(-2)$$

$$x = n \cdot \frac{\pi}{2} \quad \text{tai}$$

$$x = -\frac{\pi}{2} - n\pi$$

$$x = -\frac{\pi}{2} + n\pi, \quad n \in \mathbb{Z}$$

$$\checkmark: x = n \cdot \frac{\pi}{2}, \quad n \in \mathbb{Z}$$

$\sin(-\alpha) = -\sin \alpha$
vastakulmisen
sinito

$$\sin \alpha = \sin \beta \Leftrightarrow$$

$$\alpha = \beta + n2\pi \quad \text{tai}$$

$$\alpha = \pi - \beta + n2\pi, \quad n \in \mathbb{Z}$$