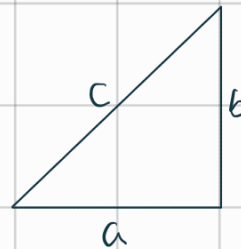


$$\sin \theta = \frac{\text{mod}}{\text{hyp}}$$

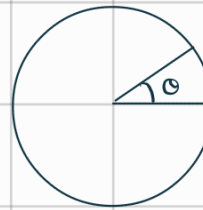
$$\cos \theta = \frac{\text{hos}}{\text{hyp}}$$

$$\tan \theta = \frac{\text{mod}}{\text{hos}} = \frac{\sin \theta}{\cos \theta}$$



$$a^2 + b^2 = c^2$$

θ	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
\sin	$\frac{1}{2}\sqrt{0}$	$\frac{1}{2}\sqrt{1}$	$\frac{1}{2}\sqrt{2}$	$\frac{1}{2}\sqrt{3}$	$\frac{1}{2}\sqrt{4}$
\cos	$\frac{1}{2}\sqrt{4}$	$\frac{1}{2}\sqrt{3}$	$\frac{1}{2}\sqrt{2}$	$\frac{1}{2}\sqrt{1}$	$\frac{1}{2}\sqrt{0}$
\tan	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	N/A



$$\sin^2(\theta) + \cos^2(\theta) = 1$$

$$\cos(\theta) = \cos(-\theta)$$

$$\sin(\theta) = -\sin(-\theta)$$

$$\sin(\theta) = \sin(\pi - \theta)$$

$$\cos(\theta) = -\cos(\pi - \theta)$$

$$\sin(\theta) = \sin(2\pi + \theta)$$

Invers

først defineres sin kun i $\{-\frac{\pi}{2}, \frac{\pi}{2}\}$

$$\sin(a) = b \Rightarrow \sin^{-1}(b) = a$$

$$D(\sin^{-1}) = \{-1, 1\}$$

$$V(\sin^{-1}) = \{-\frac{\pi}{2}, \frac{\pi}{2}\}$$

Sekant $\sec(x) = \frac{1}{\cos(x)}$

cosecant $\csc(x) = \frac{1}{\sin(x)}$

cotangent $\cot(x) = \frac{1}{\tan(x)}$



kartesiske koordinater (x, y, z)

Cylinder koordinater $(r, \theta, z) \rightarrow (\text{radius}, \text{vinkel}, z), (0 \leq r, \{0 \leq \theta \leq 2\pi\}, z \in \mathbb{R})$

$$x = r \cos(\theta)$$

$$y = r \sin(\theta)$$

$$z = z$$

Sfæriske koordinater $(\rho, \phi, \theta) \rightarrow (\text{afstand}, \text{vinkel}_z, \text{vinkel}_{xy})$

$$(0 \leq \rho, \{0 \leq \phi \leq \pi\}, \{0 \leq \theta \leq 2\pi\})$$