

Rep Lekt 7

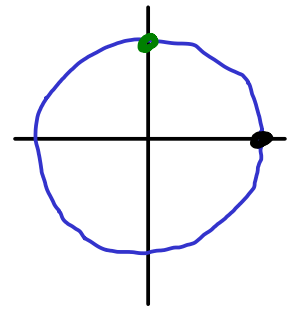
$$\left(\frac{x^{\sqrt{2}}}{x^{-\sqrt{2}}}\right)^{\sqrt{2}} = \left(x^{\sqrt{2}} - (-\sqrt{2})\right)^{\sqrt{2}}$$
$$= \left(x^{2\sqrt{2}}\right)^{\sqrt{2}} = x^{2\sqrt{2} \cdot \sqrt{2}} = x^4$$

$$\frac{a^b}{a^c} = a^{b-c}$$

$$(a^b)^c = a^{b \cdot c}$$

Sin, cos, tan för bestämda vinklar

θ grad	0	30	45	60	90
θ rad	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$
$\sin \theta$	0	$1/2$	$1/\sqrt{2}$	$\sqrt{3}/2$	1
$\cos \theta$	1	$\sqrt{3}/2$	$1/\sqrt{2}$	$1/2$	0
$\tan \theta$	0	$1/\sqrt{3}$	1	$\sqrt{3}$	ej def.



Ex: $\sin \theta = -\frac{\sqrt{5}}{3}$, $\pi \leq \theta < \frac{3\pi}{2}$

Trig. effen $\sin^2 \theta + \cos^2 \theta = 1$

$$\left(\frac{-\sqrt{5}}{3}\right)^2 + \cos^2 \theta = 1$$

$$\frac{5}{9} + \cos^2 \theta = 1$$

$$\cos^2 \theta = 1 - \frac{5}{9} = \frac{4}{9}$$

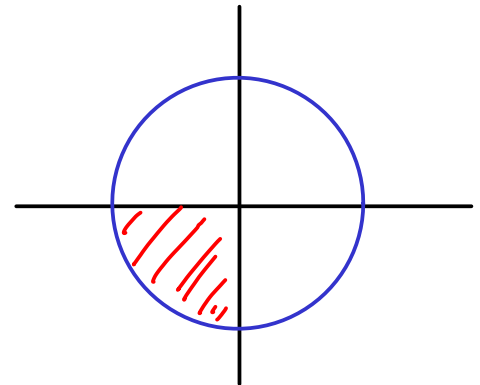
~~$$\cos \theta = \frac{2}{3}$$~~

eller

$$\boxed{\cos \theta = -\frac{2}{3}}$$

för $\pi \leq \theta < \frac{3\pi}{2}$

$$\tan \theta = \frac{-\frac{\sqrt{5}}{3}}{-\frac{2}{3}} = \frac{\sqrt{5}}{2}$$



$$n=0 \quad \theta = 0$$

el.

$$n=1 \quad \theta = \pi$$

el.

$$n=2 \quad \theta = 2\pi$$

$$\theta = \frac{\pi}{3} + n 2\pi$$

gen

$$n=0 \quad \theta = \frac{\pi}{3}$$

$$\theta = -\frac{\pi}{3} + n 2\pi$$

gen

$$n=1 \quad \theta = 2\pi - \frac{\pi}{3} = \frac{5\pi}{3}$$

} Svar!