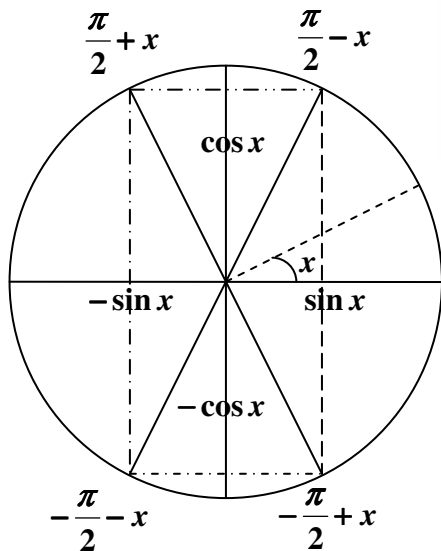
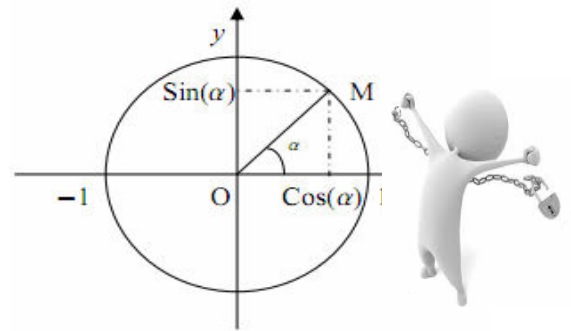
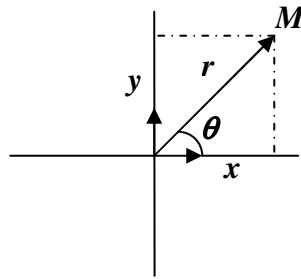
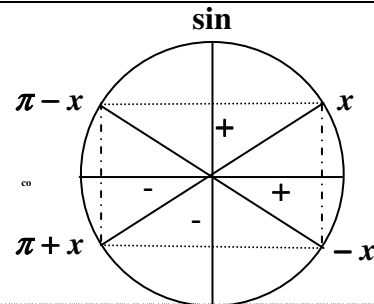


$$\begin{cases} r = \sqrt{x^2 + y^2} \\ \cos \theta = \frac{x}{r} \\ \sin \theta = \frac{y}{r} \end{cases}$$



MEBARKI
ENACER
AYAR
AYA



x	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

$$\sin\left(\frac{\pi}{2} - x\right) = \cos x$$

$$\cos\left(\frac{\pi}{2} - x\right) = \sin x$$

$$\cos(-x) = \cos x$$

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

$$\sin\left(\frac{\pi}{2} + x\right) = \cos x$$

$$\cos\left(\frac{\pi}{2} + x\right) = -\sin x$$

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

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

$$\sin\left(-\frac{\pi}{2} - x\right) = -\cos x$$

$$\cos\left(-\frac{\pi}{2} - x\right) = -\sin x$$

$$\cos(\pi + x) = -\cos x$$

$$\sin(\pi + x) = -\sin x$$

$$\sin\left(-\frac{\pi}{2} + x\right) = -\cos x$$

$$\cos\left(-\frac{\pi}{2} + x\right) = \sin x$$

$$\cos(x + 2k\pi) = \cos x$$

$$\sin(x + 2k\pi) = \sin x$$

$$\begin{aligned} c \tan x &= \frac{\cos x}{\sin x}, \quad \tan x = \frac{\sin x}{\cos x} \\ -1 &\leq \sin x \leq 1, \quad -1 \leq \cos x \leq 1 \\ \cos^2 x + \sin^2 x &= 1 \end{aligned}$$

$$\cos(a + b) = \cos a \cdot \cos b - \sin a \cdot \sin b$$

$$\cos(a - b) = \cos a \cdot \cos b + \sin a \cdot \sin b$$

$$\sin(a + b) = \sin a \cdot \cos b + \cos a \cdot \sin b$$

$$\sin(a - b) = \sin a \cdot \cos b - \cos a \cdot \sin b$$

$$\sin 2x = 2 \sin x \cdot \cos x$$

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

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

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

$$\cos x = \cos b \Leftrightarrow \begin{cases} x = b + 2k\pi \\ x = -b + 2k\pi \end{cases}$$

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

$$\sin^2 x = \frac{1 - \cos 2x}{2}$$

$$\sin x = \sin a \Leftrightarrow \begin{cases} x = a + 2k\pi \\ x = \pi - a + 2k\pi \end{cases}$$

الأستاذ : مباركي

تذكر جيدا: " أنك (تستطيع النجاح) في حياتك الدراسية ولو كان الناس جميعا يعتقدون أنك غير ناجح . ولكنك (لن تنجح أبدا) إذا كنت تعتقد في نفسك أنك غير ناجح."

انتظروا الجديد

