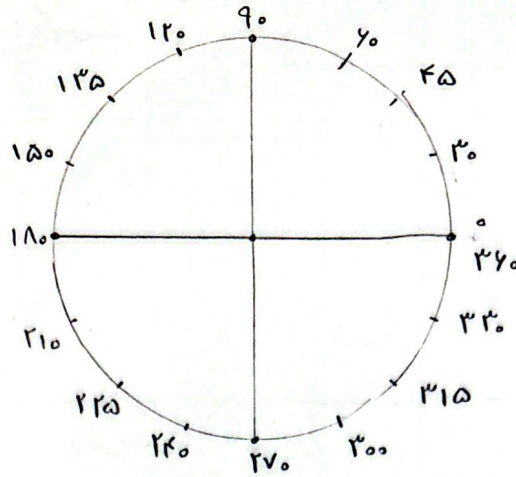
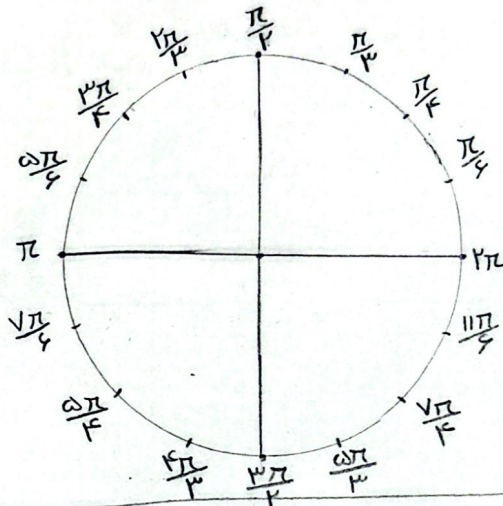


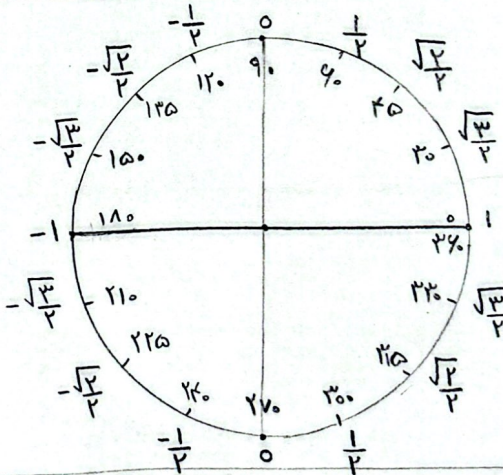
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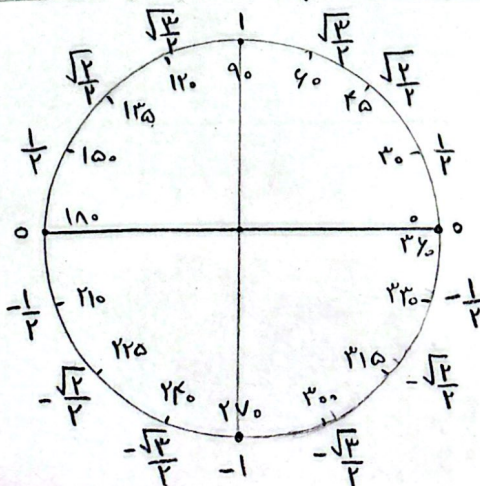


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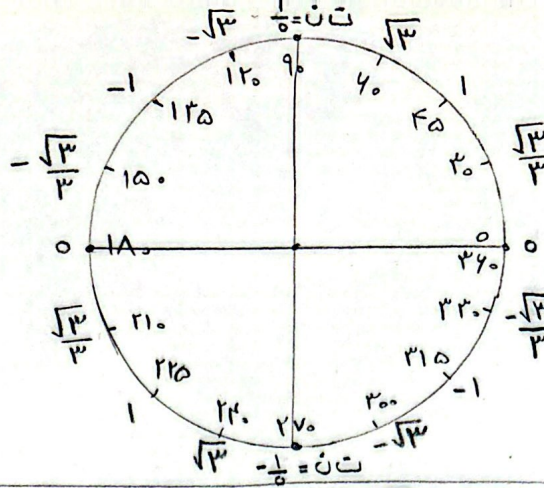
cos = x

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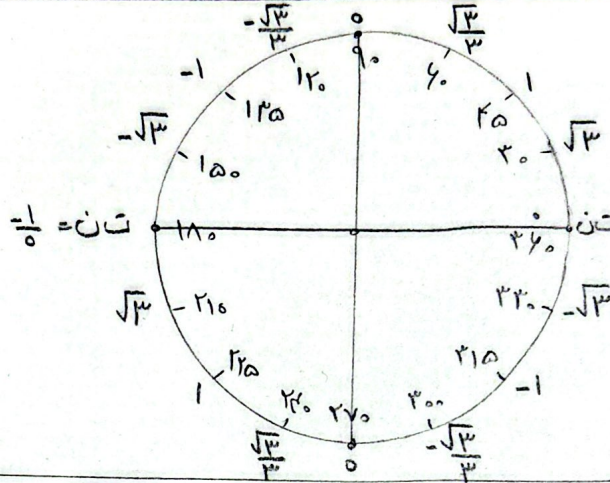
sin = y

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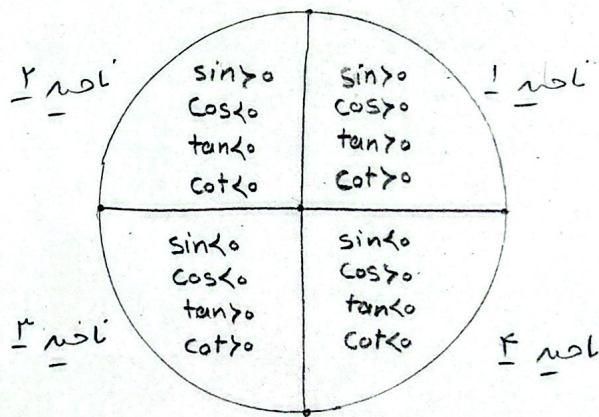
$$\tan = \frac{\sin}{\cos}$$

3



$$\cot = \frac{\cos}{\sin}$$

4



5

الف) $\sin 120^\circ = \sin x \rightarrow \frac{\sqrt{3}}{2} \rightsquigarrow x = 60^\circ$

ج) $\tan 135^\circ = \frac{\sin 135^\circ}{\cos 135^\circ} \rightarrow \tan x = -1 \rightsquigarrow x = 135^\circ$

ب) $\cos 150^\circ = \cos x \rightarrow -\frac{\sqrt{3}}{2} \rightsquigarrow x = 210^\circ$

د) $\cot 135^\circ = \frac{\cos 135^\circ}{\sin 135^\circ} \rightarrow \cot x = -1 \rightsquigarrow x = 135^\circ$

6

الف) $(\frac{2\pi}{3} = 120^\circ) \rightarrow -\cos \frac{2\pi}{3} = \sin x \rightarrow -(-\frac{1}{2}) = \frac{1}{2} \rightsquigarrow x = (30^\circ = \frac{\pi}{6}) \text{ و } (150^\circ = \frac{5\pi}{6})$

7

ب) $(\frac{11\pi}{6} = 330^\circ) \rightarrow -\cos \frac{11\pi}{6} = \sin x \rightarrow -\frac{\sqrt{3}}{2} \rightsquigarrow x = (210^\circ = \frac{7\pi}{6}) \text{ و } (300^\circ = \frac{5\pi}{3})$

8

الف) $(\frac{\sqrt{2}}{2} = 45^\circ) \rightarrow \cot \frac{\sqrt{2}}{2} = \frac{\cos 45^\circ}{\sin 45^\circ} \rightarrow \cot x = 1 \rightsquigarrow x = 45^\circ$

9

ب) $-\cos 150^\circ = \sin x \rightarrow -(-\frac{\sqrt{3}}{2}) = \frac{\sqrt{3}}{2} \rightsquigarrow x = 60^\circ, 120^\circ$

10