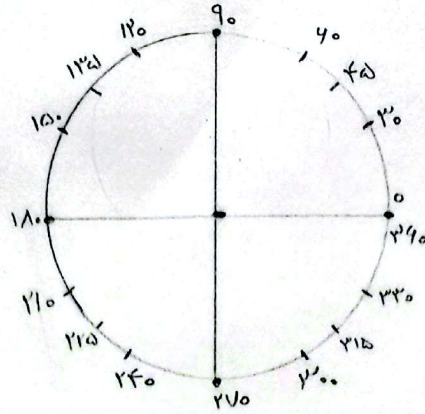
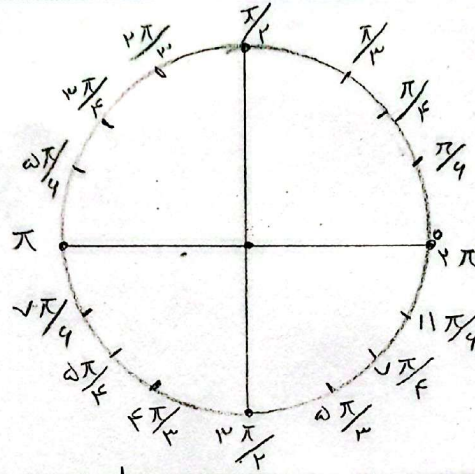


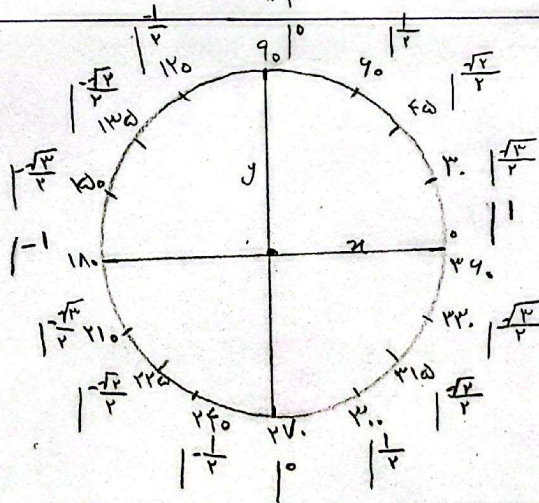
19



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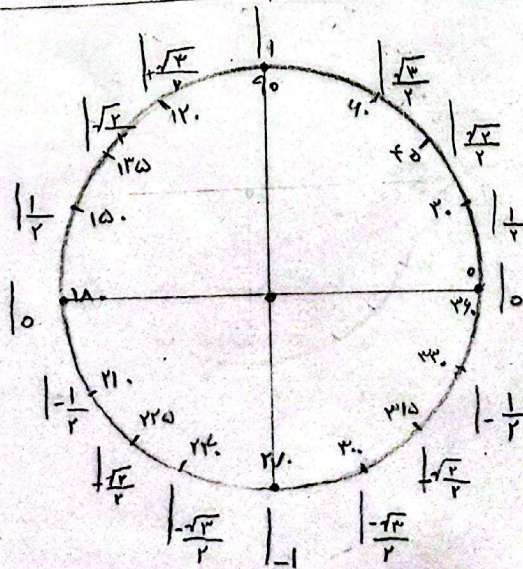


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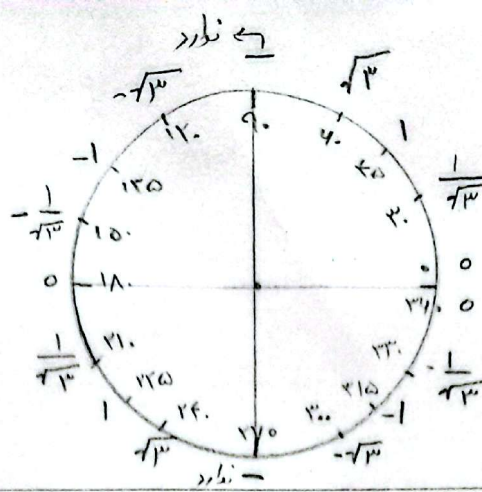
$$\cos = x$$

۲



$$\sin = y$$

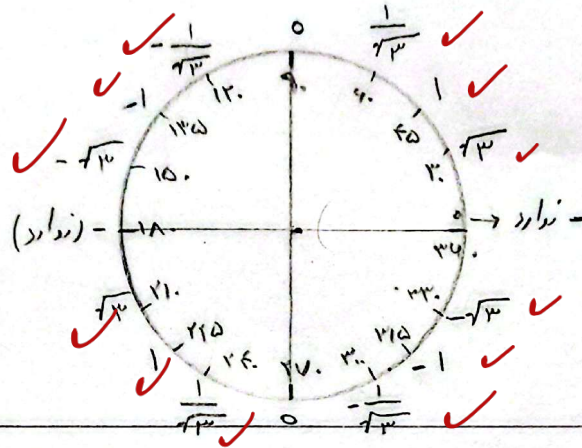
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$$\tan = \frac{\sin}{\cos}$$

115

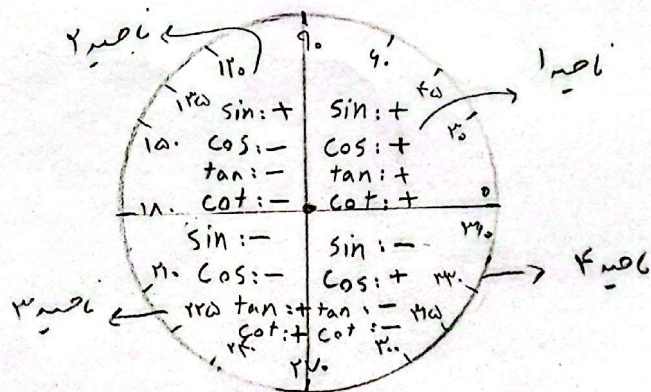
$\tan 90^\circ$
و $\tan 270^\circ$ تعریف نشده



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

115

$\cot 0^\circ$ و $\cot 180^\circ$ تعریف نشده



5

$$\tan 135^\circ = \frac{-1}{1} = -1$$

$$\tan 150^\circ = -\frac{1}{\sqrt{3}}$$

$$\cot 135^\circ = 1, \cot 45^\circ = 1$$

$$\sin 120^\circ = \frac{\sqrt{3}}{2}, \sin 40^\circ = \frac{\sqrt{3}}{2} \rightarrow 40^\circ$$

$$\cos 150^\circ = -\frac{\sqrt{3}}{2}, \cos 210^\circ = -\frac{\sqrt{3}}{2} \rightarrow 210^\circ$$

8

$$\frac{2\pi}{3} = 120^\circ, \cos 120^\circ = -\frac{1}{2}, \frac{1}{2} = \sin 30^\circ, 150^\circ \rightarrow \sin \frac{\pi}{6}, \frac{5\pi}{6}$$

$$\frac{11\pi}{6} = 330^\circ, \cos 330^\circ = \frac{\sqrt{3}}{2}, -\frac{\sqrt{3}}{2} = \sin 240^\circ, 30^\circ \rightarrow \sin \frac{\pi}{6}, \frac{5\pi}{6}$$

9

$$\frac{\sqrt{2}}{2} = 45^\circ \rightarrow \cot 135^\circ = -1 = \cos 180^\circ$$

180°

$$\cos 150^\circ = -\frac{\sqrt{3}}{2} \rightarrow +\frac{\sqrt{3}}{2} = \sin 40^\circ, 120^\circ$$

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