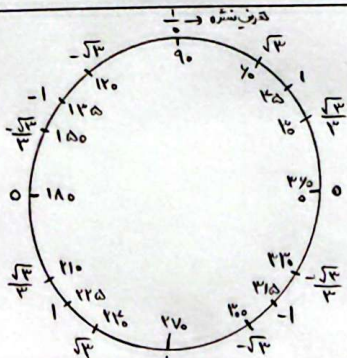
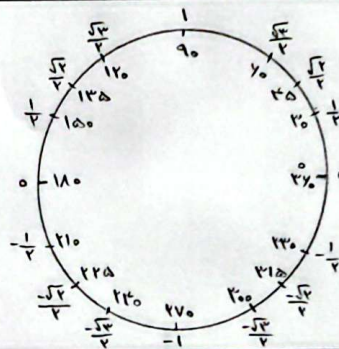
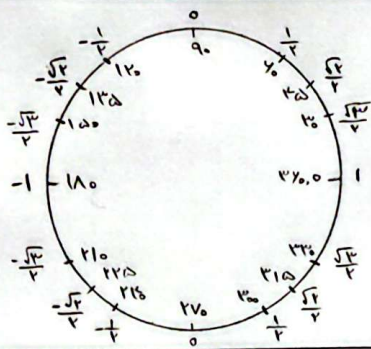
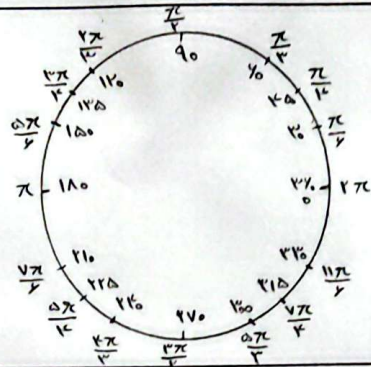
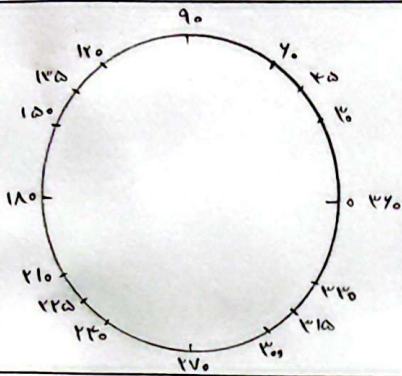


نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۲ کلاس دهم دبیرستان ج.



$$\begin{aligned} \tan &= \frac{\sin}{\cos} \rightarrow \tan 0^\circ \rightarrow \tan = \frac{0}{1} = 0 \\ &\rightarrow \tan 30^\circ \rightarrow \tan = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3} \\ &\rightarrow \tan 45^\circ \rightarrow \tan = \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = 1 \\ &\rightarrow \tan 60^\circ \rightarrow \tan = \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \sqrt{3} \\ &\rightarrow \dots \end{aligned}$$

احسن سوره $\rightarrow \frac{1}{2}$

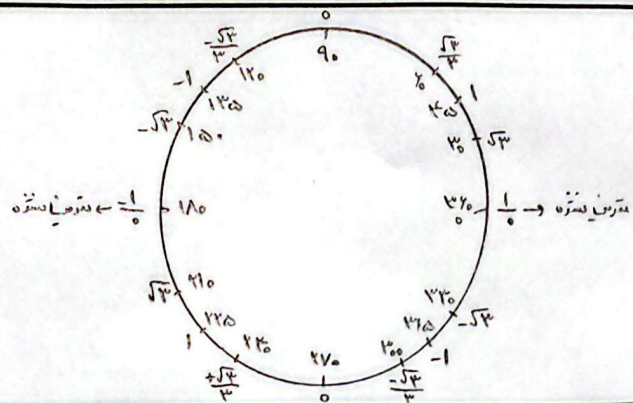
$$\cot = \frac{\cos}{\sin} \rightarrow 30^\circ \rightarrow \frac{1}{0} \rightarrow \text{قوس مستقیم}$$

$$\rightarrow 60^\circ \rightarrow \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \sqrt{3}$$

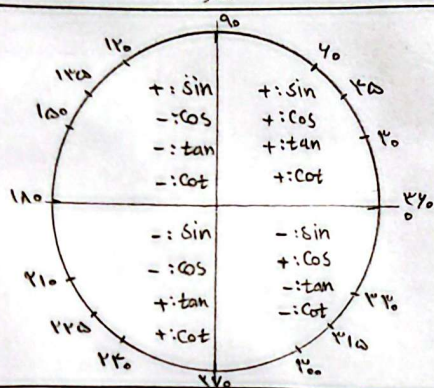
$$\rightarrow 45^\circ \rightarrow \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = 1$$

$$\rightarrow 30^\circ \rightarrow \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}}$$

$$\rightarrow \dots$$



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7

الف) $\sin 150^\circ = \frac{\sqrt{3}}{2} = \sin 30^\circ$

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

ج) $\tan 330^\circ = -\frac{\sqrt{3}}{3} = \tan 210^\circ$

د) $\cot 135^\circ = -1 = \cot 315^\circ$

8

الف) $\frac{\pi}{6} \rightarrow 30^\circ \rightarrow \left| \frac{1}{\sqrt{3}} \right| \rightarrow \cos 150^\circ = -\frac{1}{2} \rightarrow \cos 150^\circ \text{ قوس مستقیم} = \frac{1}{2} = \sin 150^\circ = \sin 30^\circ \rightarrow \frac{\pi}{6}, \frac{5\pi}{6}$

ب) $\frac{11\pi}{6} \rightarrow 330^\circ \rightarrow \left| \frac{\sqrt{3}}{2} \right| \rightarrow \cos 330^\circ = \frac{\sqrt{3}}{2} \rightarrow \cos 330^\circ \text{ قوس مستقیم} = -\frac{\sqrt{3}}{2} = \sin 30^\circ = \sin 210^\circ \rightarrow \frac{5\pi}{6}, \frac{7\pi}{6}$

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الف) $\frac{7\pi}{4} \rightarrow 315^\circ \rightarrow \left| \frac{\sqrt{2}}{2} \right| \rightarrow \cot 315^\circ = \frac{\cos}{\sin} = \frac{\frac{\sqrt{2}}{2}}{-\frac{\sqrt{2}}{2}} = -1 = \cos 180^\circ$

ب) $\cos 150^\circ = -\frac{\sqrt{3}}{2} \rightarrow \cos 150^\circ \text{ قوس مستقیم} = \frac{\sqrt{3}}{2} = \sin 150^\circ = \sin 30^\circ$

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