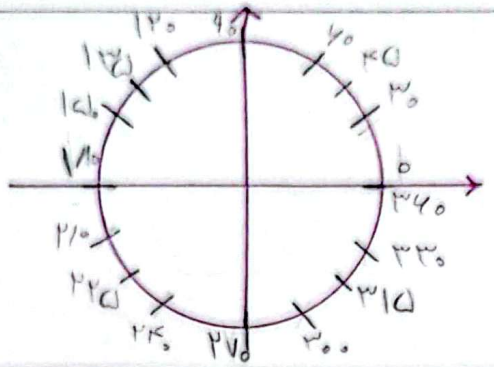
نام و نام خانوادگی علیرضا آتشی عشری پاسخنامه تشریحی تکلیف شماره ۲ کلاس B - دهم

۱



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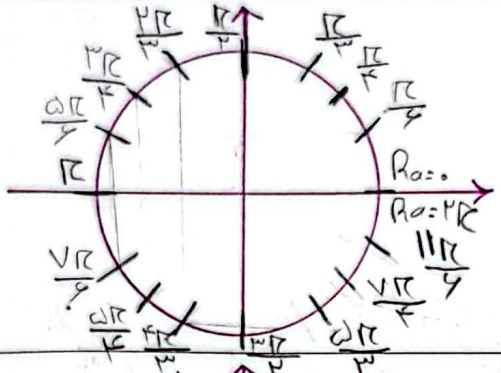

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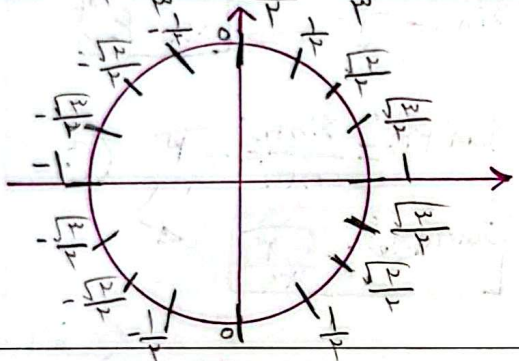

Cos

Sin

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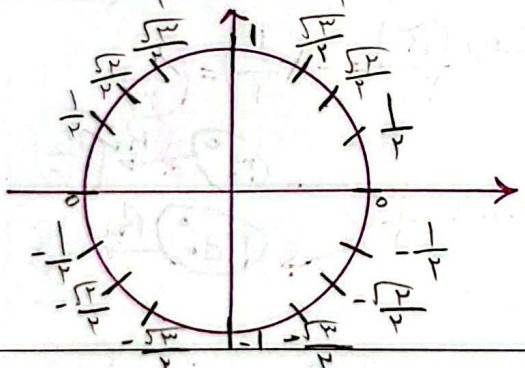

Cos

Sin

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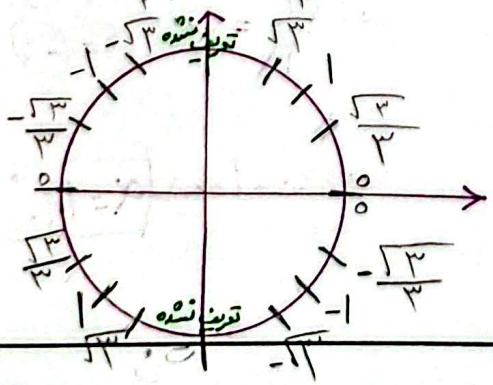
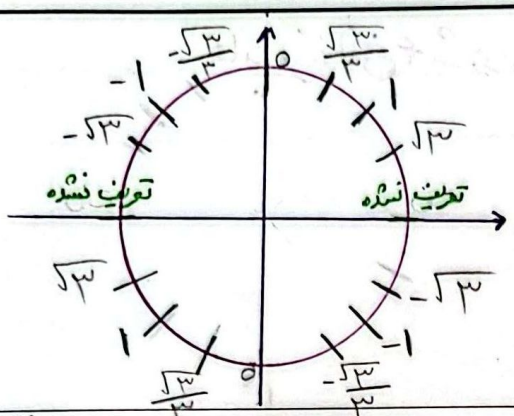


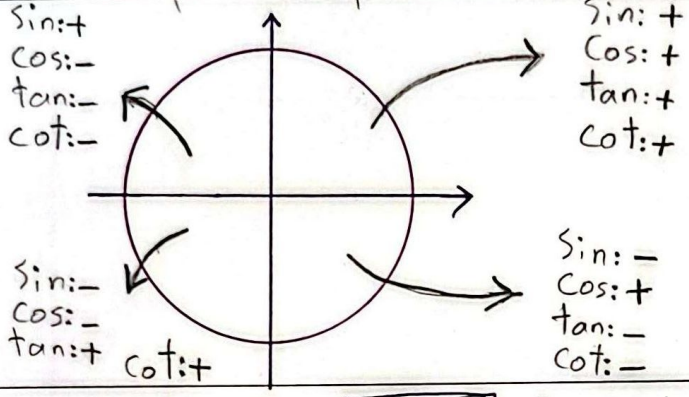
$$\tan = \frac{\sin}{\cos}$$

۶



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

۷



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الف) $\sin 120^\circ = \frac{\sqrt{3}}{2} \Rightarrow \sin\alpha = \frac{\sqrt{3}}{2} \Rightarrow \alpha = 60^\circ$ ✓

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

$\cot 135^\circ = \frac{\cos 135^\circ}{\sin 135^\circ} = \frac{-\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = -1$

$\cot 135^\circ = -1$

$\cot 315^\circ = -1 \rightarrow \frac{\frac{\sqrt{2}}{2}}{-\frac{\sqrt{2}}{2}} = -1$ ✓

ج) $\tan 330^\circ = \frac{\sin 330^\circ}{\cos 330^\circ} = \frac{-\frac{1}{2}}{\frac{\sqrt{3}}{2}} = -\frac{\sqrt{3}}{3}$

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

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الف) $-\left(\cos\frac{2\pi}{3}\right) = -\left(-\frac{1}{2}\right) = \frac{1}{2}$

$\sin\alpha = \frac{1}{2} \rightarrow 30^\circ \xrightarrow{Ra} \frac{\pi}{6}$, $150^\circ \xrightarrow{Ra} \frac{5\pi}{6}$ ✓

ب) $-\left(\cos\frac{11\pi}{6}\right) = -\left(\frac{\sqrt{3}}{2}\right) = -\frac{\sqrt{3}}{2}$

$\sin\alpha = -\frac{\sqrt{3}}{2} \rightarrow 240^\circ \xrightarrow{Ra} \frac{4\pi}{3}$, $300^\circ \xrightarrow{Ra} \frac{5\pi}{3}$ ✓

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الف) $\cot\frac{7\pi}{4} = \cot 315^\circ = -1$

$\cos\alpha = -1 \Rightarrow \alpha = 180^\circ$ ✓

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

$\sin\alpha = \frac{\sqrt{3}}{2} \rightarrow 60^\circ, 120^\circ$