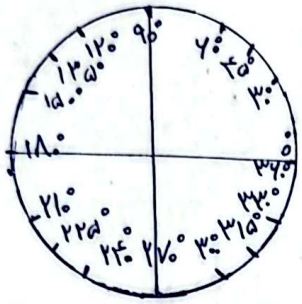
نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ۲ ..... کلاس .....C.....

19

۱



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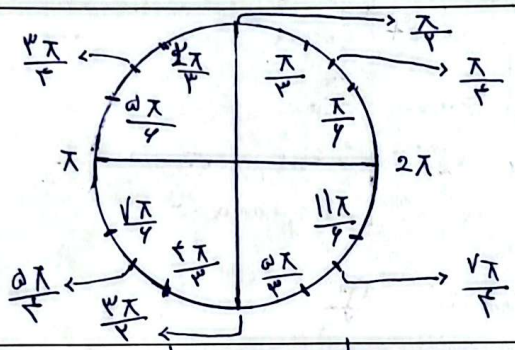

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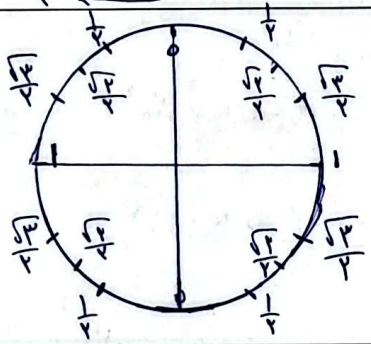

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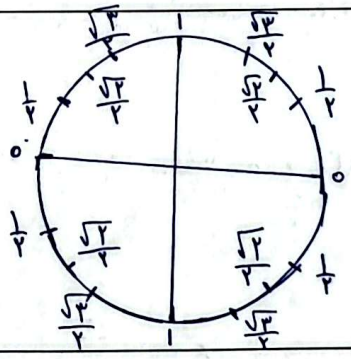

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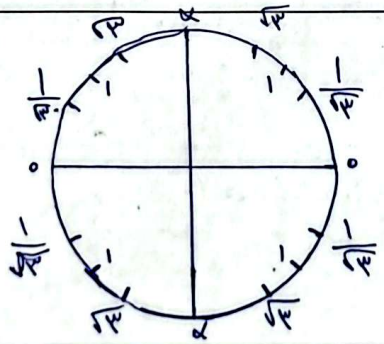
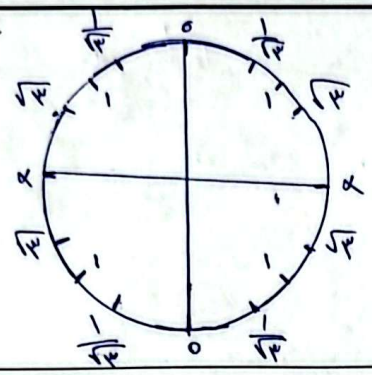


مخرج صفراست ← ندارد ← α

$\tan 90^\circ$ و 270° = تعریف نشده

۶

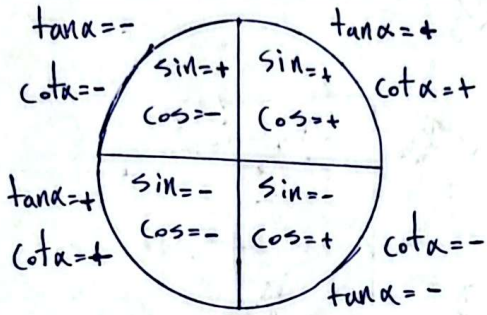


مخرج صفر است ← نداره ← α

تعریف نشده ← $\cot 0,180$

(۱/۵)

۷



(۲)

۸

الف) ۷۰°

ب) ۲۱۰°

ج) ۱۲۰°

د) ۳۱۵°

$\sin\alpha = \sin 120^\circ \rightarrow \alpha = 70^\circ \rightarrow \sin 120^\circ = +\frac{\sqrt{3}}{2}$

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

$\tan\alpha = \tan 330^\circ \rightarrow \tan 330^\circ = \frac{-\frac{\sqrt{2}}{2}}{+\frac{1}{2}} = -\sqrt{2} \rightarrow \alpha = 120^\circ$

$\cot\alpha = \cot 135^\circ \rightarrow \cot 135^\circ = \frac{-\frac{\sqrt{2}}{2}}{+\frac{\sqrt{2}}{2}} = -1 \rightarrow \alpha = 315^\circ$

۹

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

ب) $-(\cos\frac{11\pi}{6}) = \sin\alpha \rightarrow \cos\frac{11\pi}{6} = +\frac{\sqrt{3}}{2} \rightarrow -\frac{\sqrt{3}}{2} = \sin\alpha \rightarrow \alpha = 240^\circ, 300^\circ \rightarrow \frac{4\pi}{3}, \frac{5\pi}{3}$

(۲)

۱۰

الف) $\cot\frac{7\pi}{4} = \cos\alpha \rightarrow \cot\frac{7\pi}{4} = \frac{+\frac{\sqrt{2}}{2}}{-\frac{\sqrt{2}}{2}} = -1 = \cos\alpha \rightarrow \alpha = 180^\circ$

(۳)

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