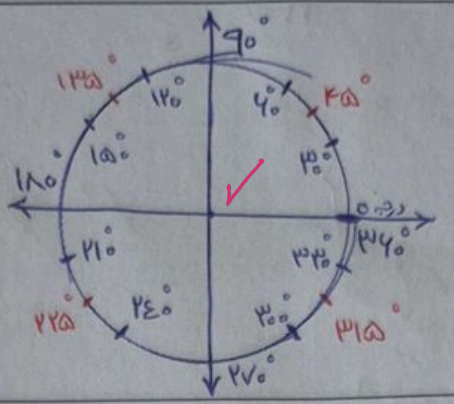
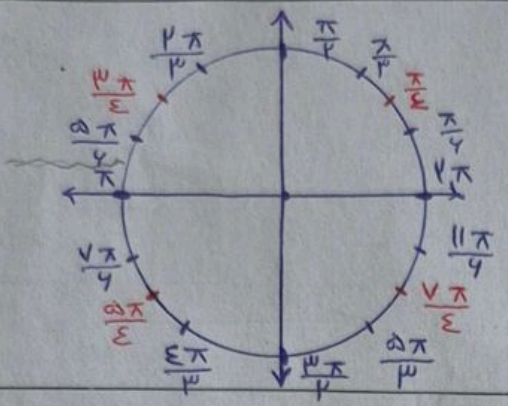
نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ..۲.. کلاس ..دهم.. ریاضی ۱

۱۹/۶

۱ (۲)

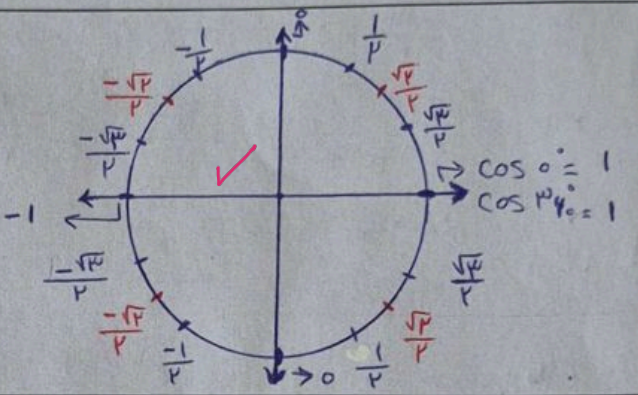


۲ (۲)



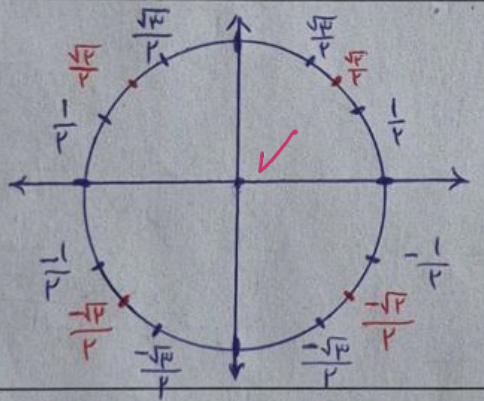
۳ (۲)

$\begin{matrix} x \\ y \end{matrix} \rightarrow \cos = x$ ★



۴ (۲)

$\begin{matrix} x \\ y \end{matrix} \rightarrow \sin = y$ ★



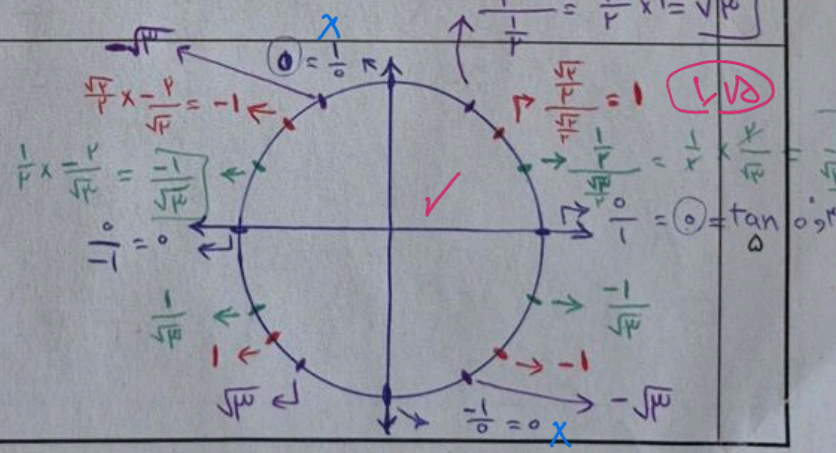
۵ (۱۵)

$\tan \alpha = \dfrac{\sin \alpha}{\cos \alpha}$

$\tan 90^\circ = \dfrac{1}{0} = 0$ مقدار

↳ از عبارت تعریف نشده استفاده میکنیم

$\dfrac{1}{0} \neq 0$

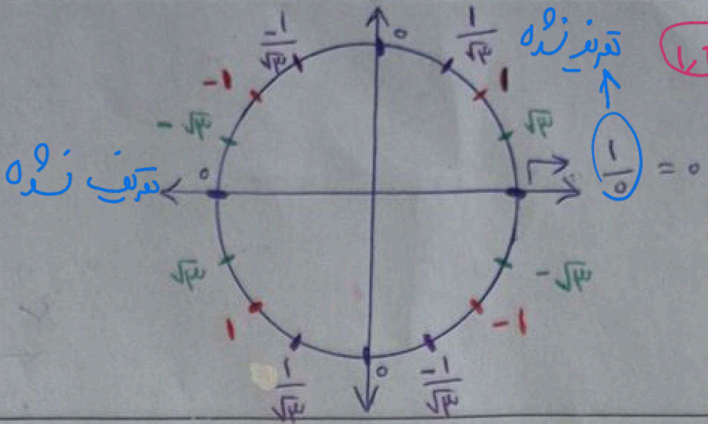


۶ — (۱/۷۵)

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

↓

مثال $= \cot 90^\circ = \frac{0}{1} = 0$



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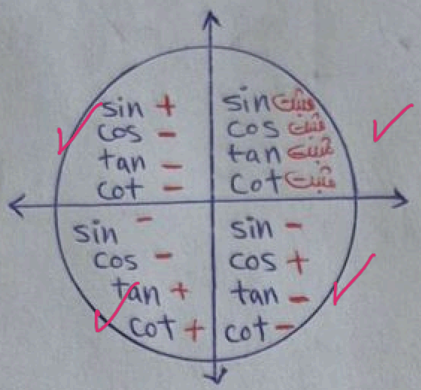
۷ — (۲)



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۸ — (۲)

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

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

ج) $\tan 330^\circ = \frac{\sin 330^\circ}{\cot 330^\circ} = \frac{\frac{-1}{2}}{\frac{\sqrt{3}}{2}} = \frac{-1}{\sqrt{3}} \Rightarrow \tan \alpha = \frac{-1}{\sqrt{3}} \Rightarrow \alpha = 150^\circ$

د) $\cot 135^\circ = \frac{\cos 135^\circ}{\sin 135^\circ} = \frac{\frac{-\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = -1 \Rightarrow \cot \alpha = -1 \Rightarrow \alpha = 315^\circ$

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۹ — (۲)

الف) $\frac{2\pi}{3}$ (رادیان) → درجه $= 120^\circ \Rightarrow \cos \frac{2\pi}{3} = \frac{-1}{2} \Rightarrow$ قرینه‌اش $= \frac{1}{2}$

$\sin \alpha = \frac{1}{2} \Rightarrow \alpha = \frac{\pi}{6}, \frac{5\pi}{6}$

ب) $\cos \frac{11\pi}{6} = \frac{\sqrt{3}}{2} \Rightarrow$ قرینه‌اش $= \frac{-\sqrt{3}}{2} \Rightarrow \sin \alpha = \frac{-\sqrt{3}}{2} \Rightarrow \alpha = \frac{4\pi}{3}, \ \alpha = \frac{5\pi}{3}$

---

۱۰ — (۲)

الف) * $\cot \alpha = \frac{\cos \alpha}{\sin \alpha} \Rightarrow \cot \frac{7\pi}{4} = \frac{\frac{\sqrt{2}}{2}}{\frac{-\sqrt{2}}{2}} = -1$

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

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