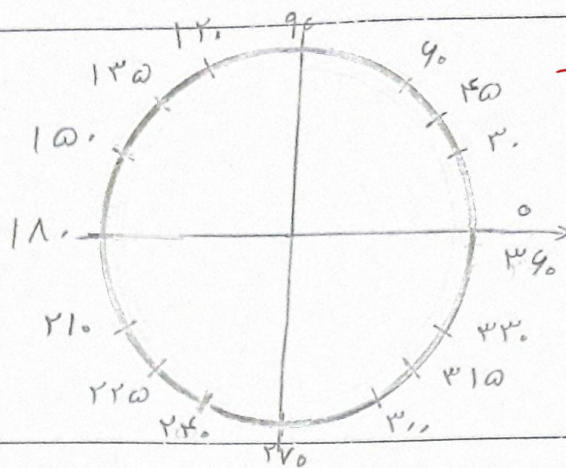
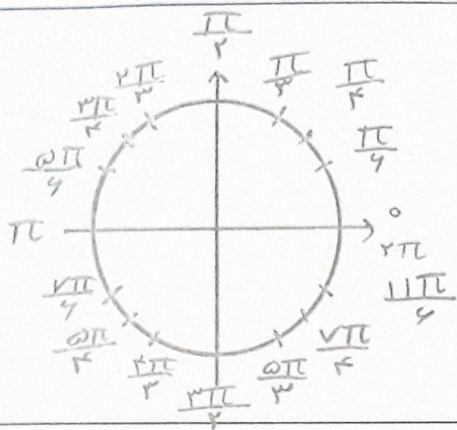


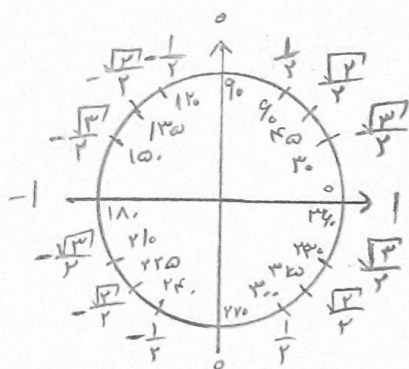
نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۲ کلاس ۲۵



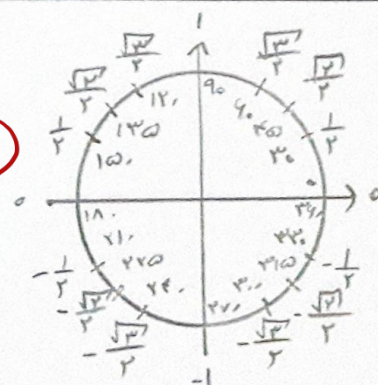
۱



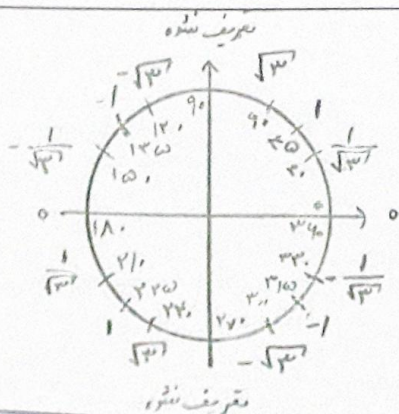
۲



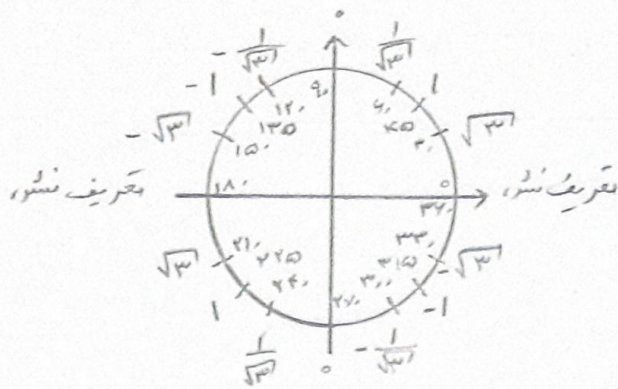
۳



۴

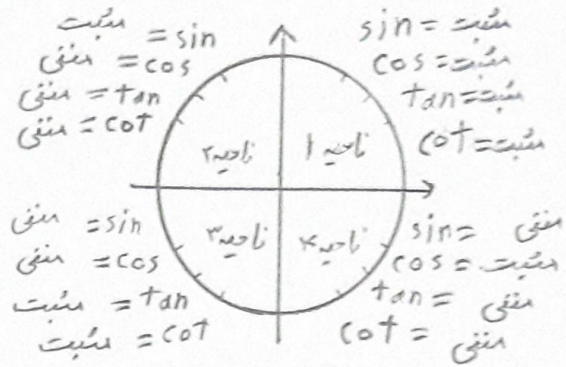


۵



٢

٤



الف: $12^\circ = \left| \frac{-\frac{1}{2}}{\frac{\sqrt{3}}{2}} \right|$ $9^\circ = \left| \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} \right| \Rightarrow \sin 12^\circ = \sin 9^\circ$

ب: $10^\circ = \left| \frac{-\frac{\sqrt{3}}{2}}{\frac{1}{2}} \right|$ $31^\circ = \left| \frac{-\frac{\sqrt{3}}{2}}{-\frac{1}{2}} \right| \Rightarrow \cos 10^\circ = \cos 31^\circ$

ج: $\tan 33^\circ = -\frac{1}{\sqrt{3}}$ $\tan 10^\circ = -\frac{1}{\sqrt{3}} \Rightarrow \tan 33^\circ = \tan 10^\circ$

د: $\cot 130^\circ = -1$ $\cot 210^\circ = -1 \Rightarrow \cot 130^\circ = \cot 210^\circ$

٥

الف) $\frac{2\pi}{3} = 120^\circ \rightarrow \cos 120^\circ = -\frac{1}{2} \xrightarrow{\text{قرينة}} \frac{1}{2}$

$\sin 10^\circ = \sin 30^\circ = \frac{1}{2}$

$10^\circ = \frac{\pi}{6}$ $30^\circ = \frac{\pi}{3}$

٥

ب) $\frac{11\pi}{9} = 220^\circ \rightarrow \cos 220^\circ = \frac{\sqrt{3}}{2} \xrightarrow{\text{قرينة}} -\frac{\sqrt{3}}{2}$

$\sin 24^\circ = \sin 36^\circ = -\frac{\sqrt{3}}{2}$

$24^\circ = \frac{2\pi}{15}$ $36^\circ = \frac{2\pi}{5}$

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

$\cos 18^\circ = -1$

٥

ب) $\cos 10^\circ = -\frac{\sqrt{3}}{2} \xrightarrow{\text{قرينة}} \frac{\sqrt{3}}{2}$

$\sin 4^\circ = \sin 12^\circ = \frac{\sqrt{3}}{2}$