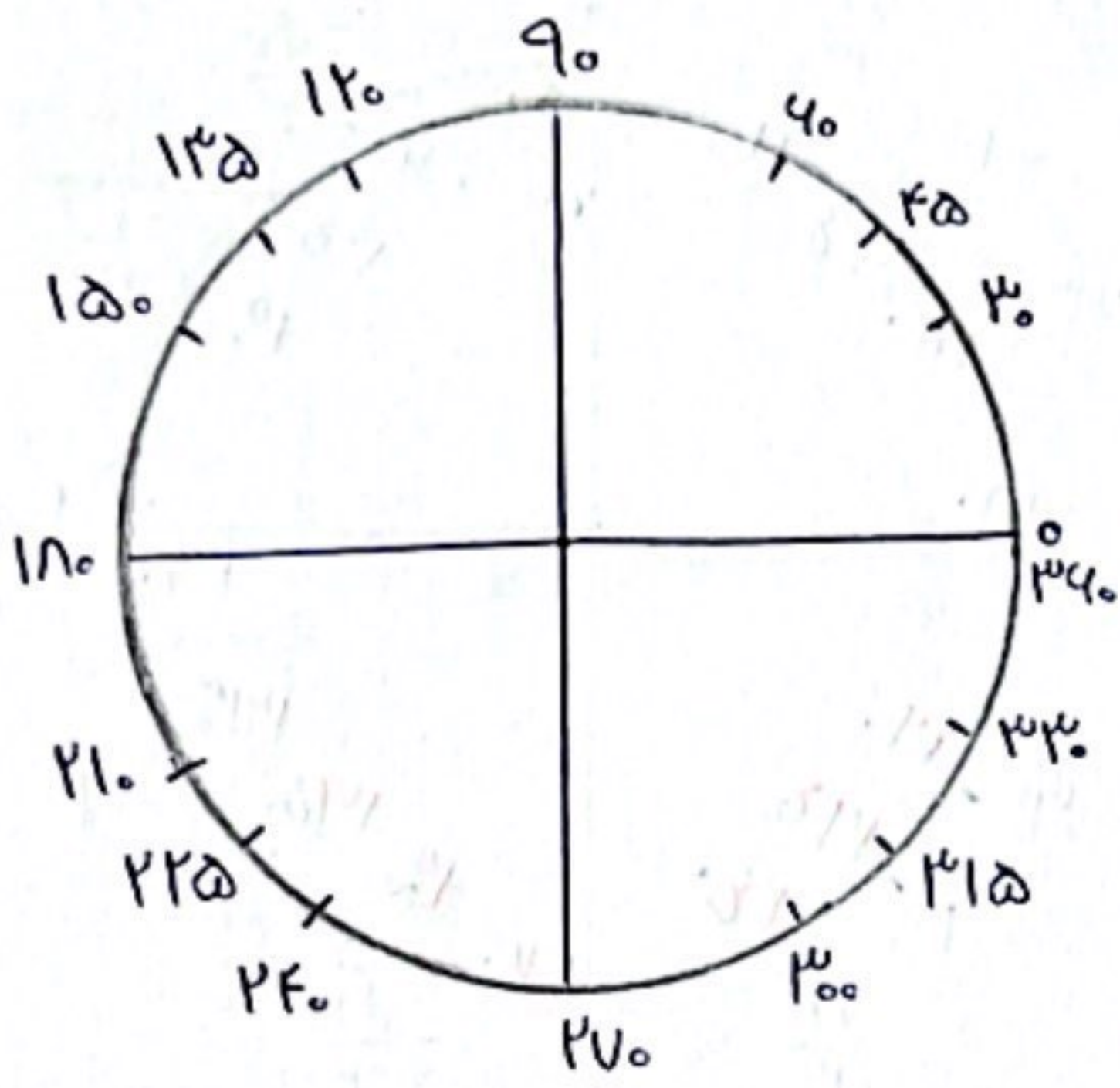
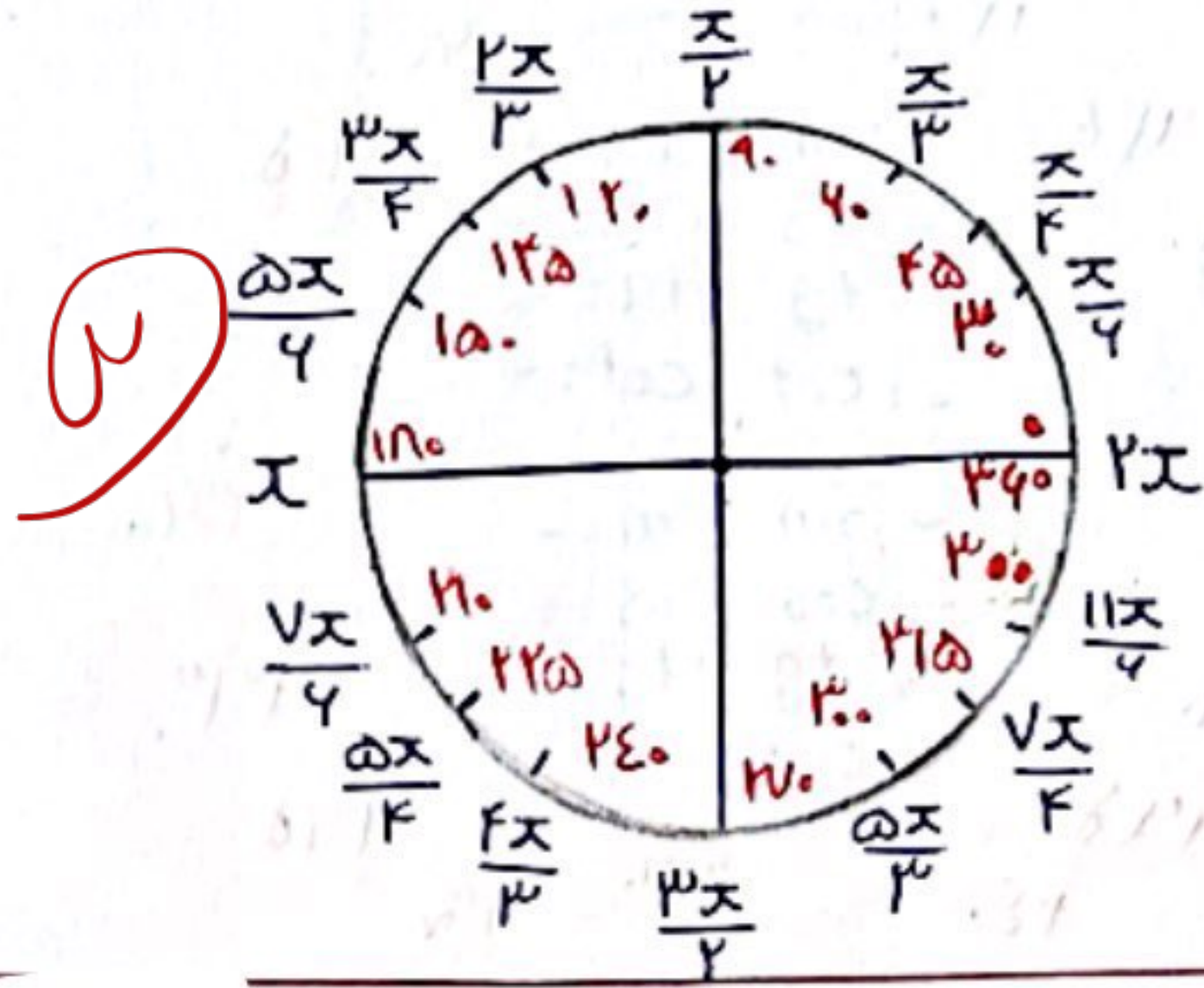
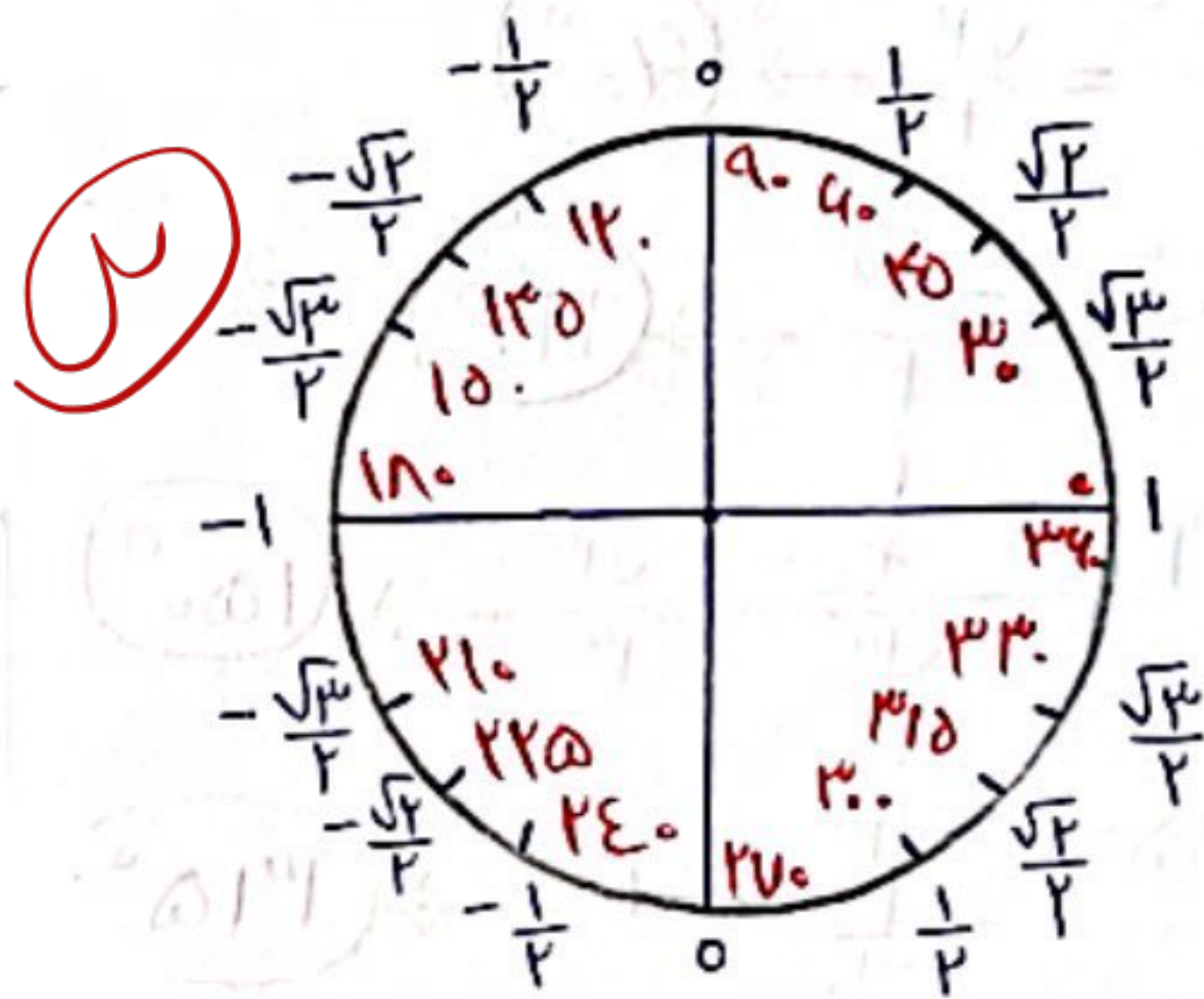




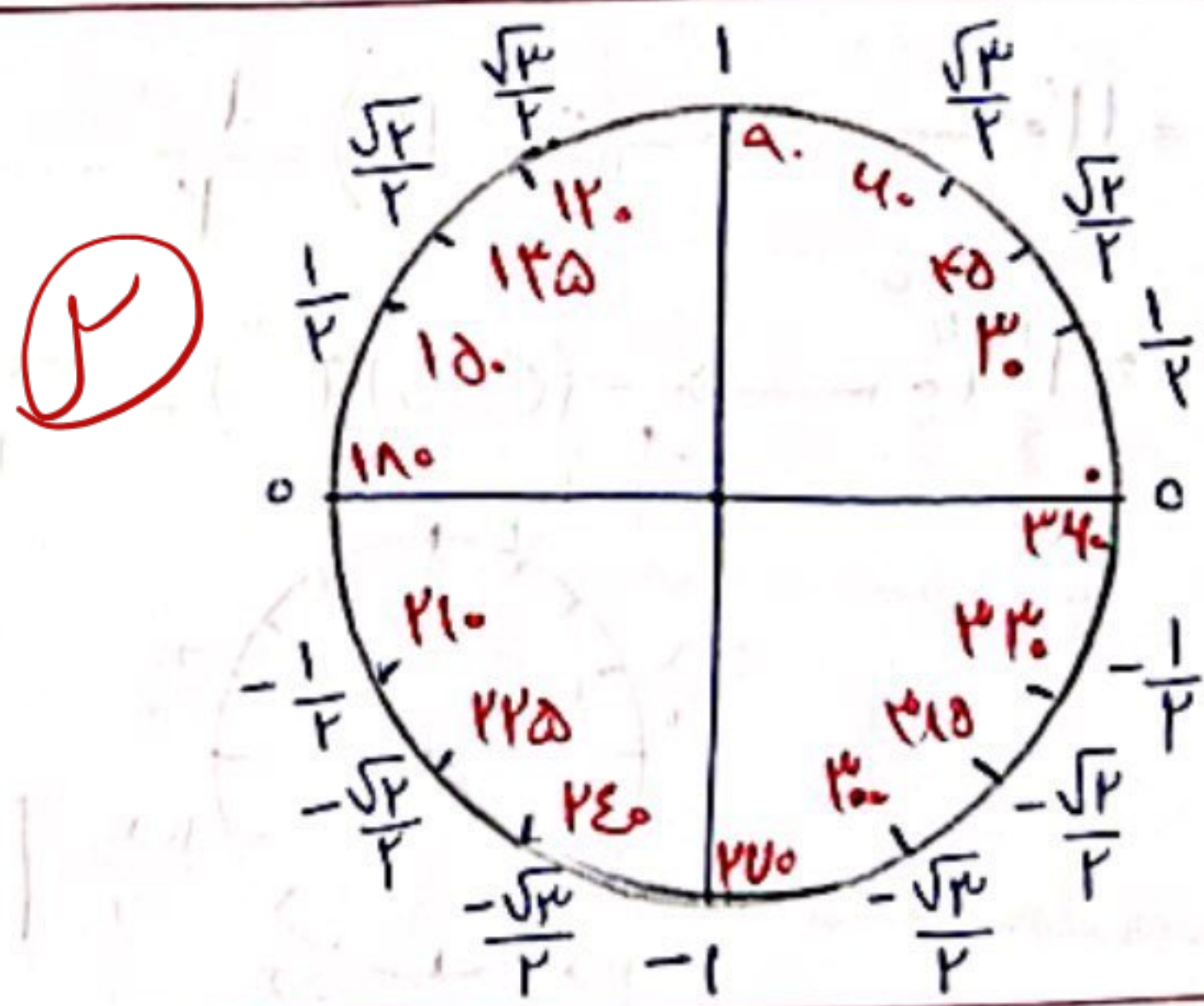
سؤال ۱



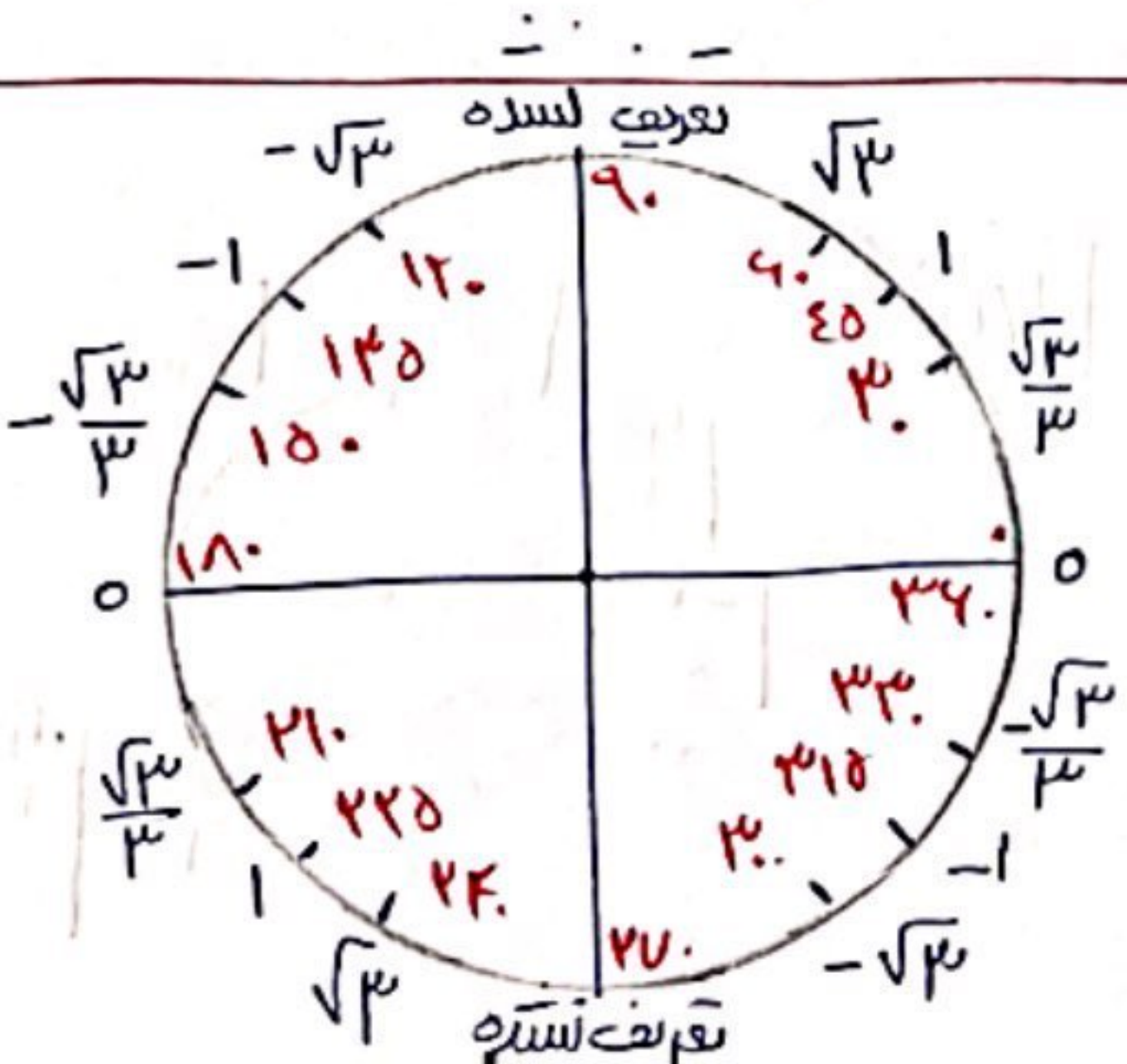
سؤال ۲



سؤال ۳

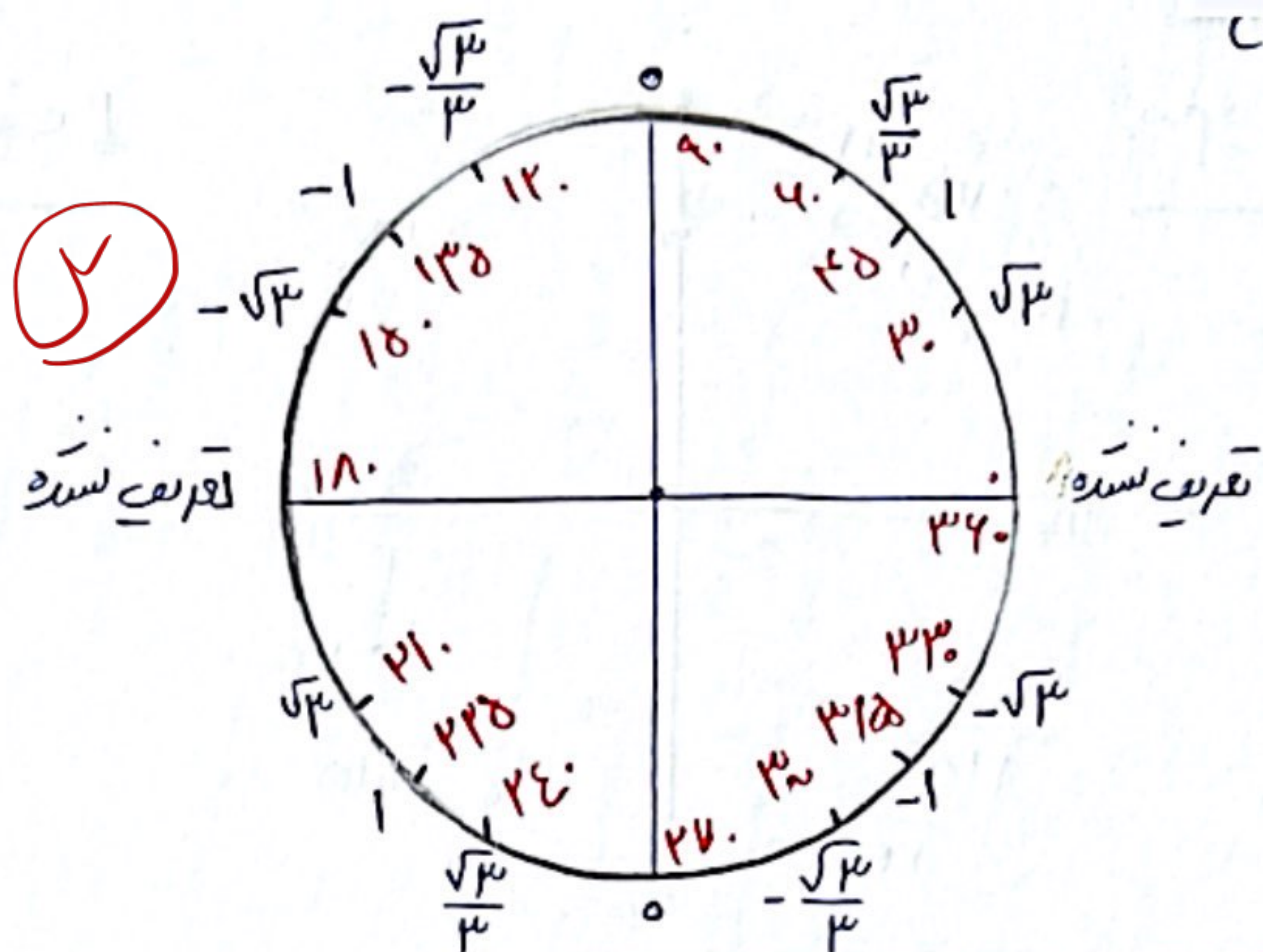


سؤال ۴

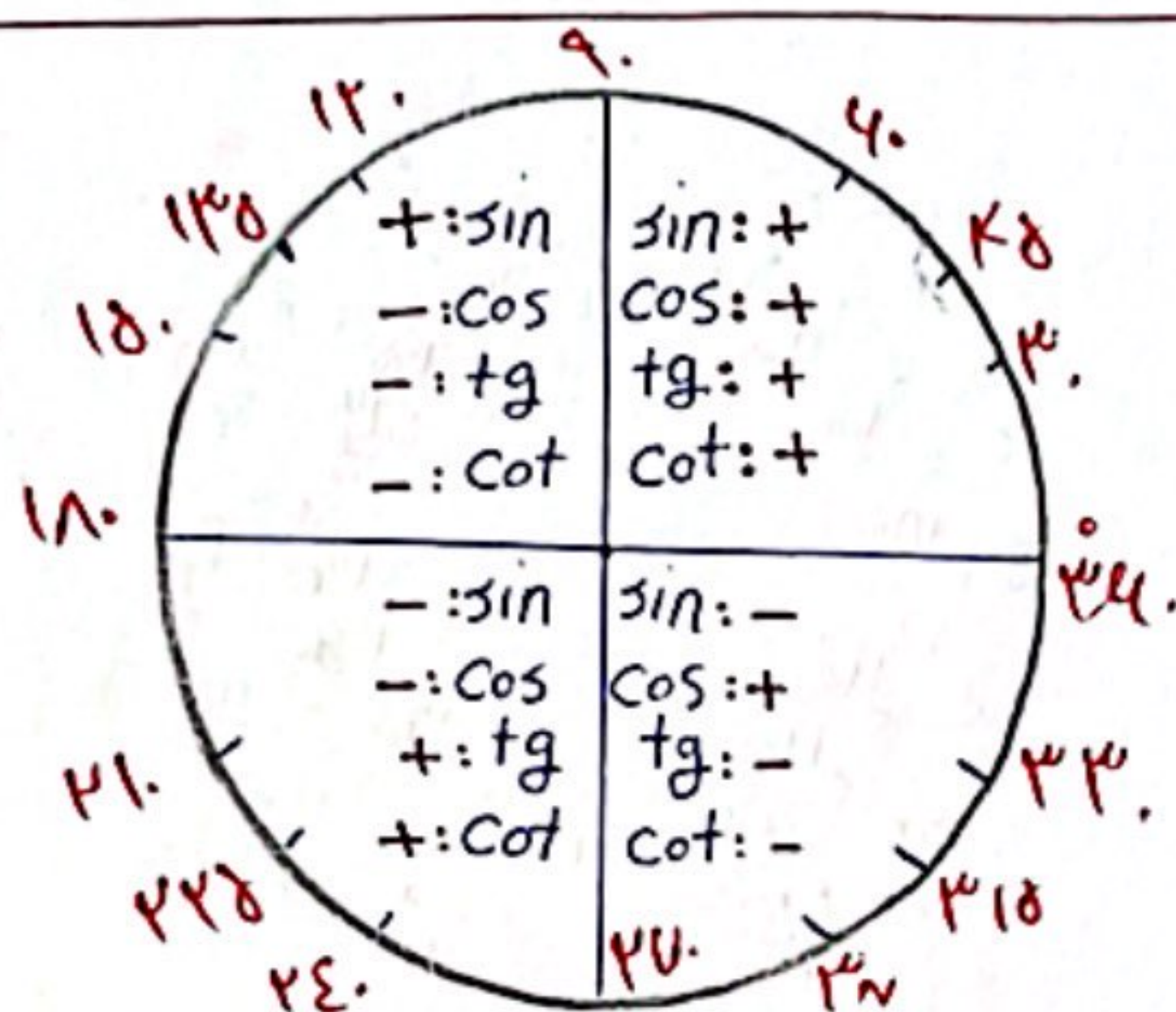


سؤال ۵

سؤال ٦



سؤال ٧

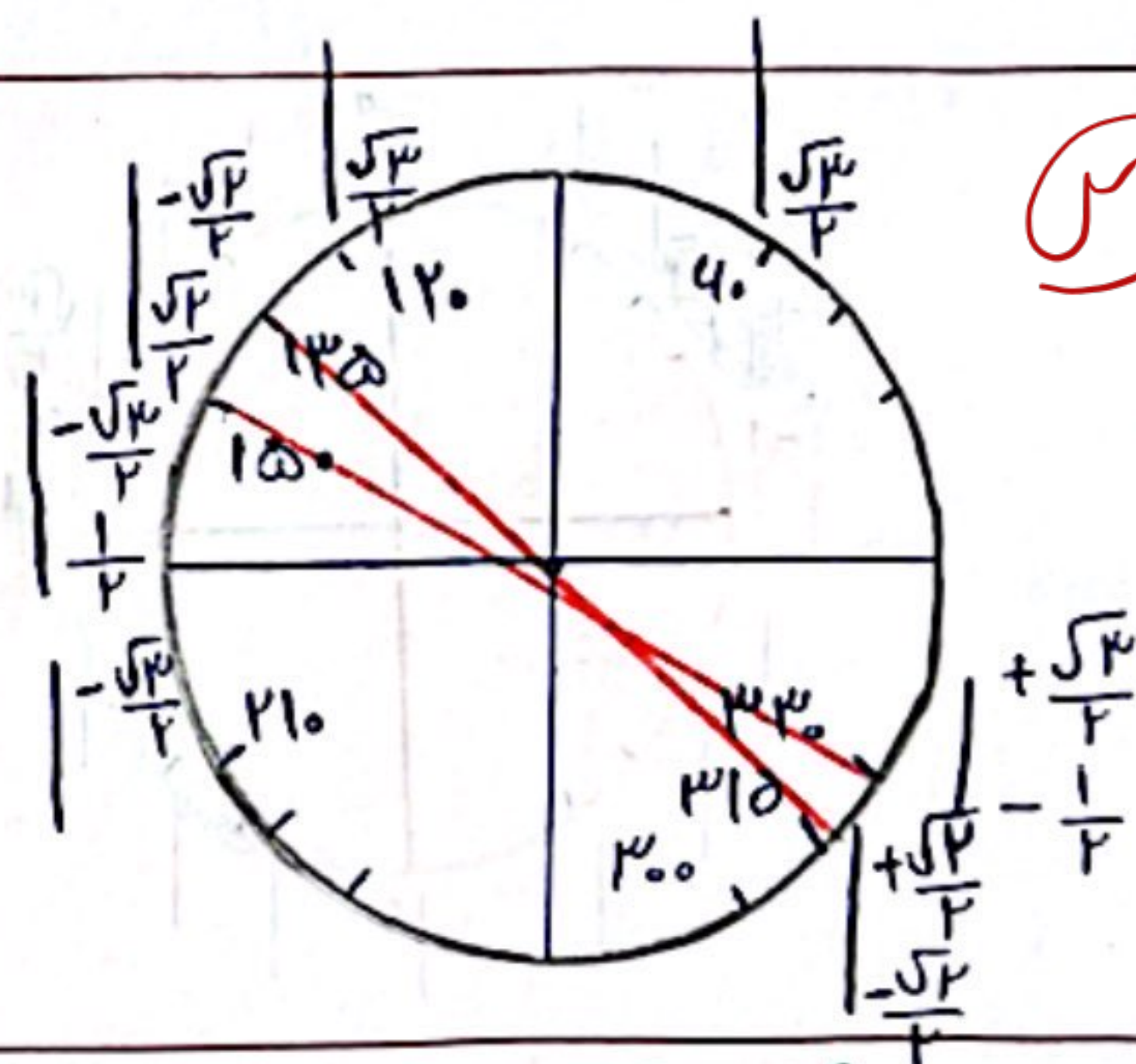


الف) $\sin 12^\circ = \frac{\sqrt{3}}{2} \rightarrow 40^\circ$

ب) $\cos 15^\circ = -\frac{\sqrt{3}}{2} \rightarrow 210^\circ$

ج) $\tan 33^\circ = \frac{-1}{\sqrt{3}} = -\frac{\sqrt{3}}{3} \rightarrow 150^\circ$

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

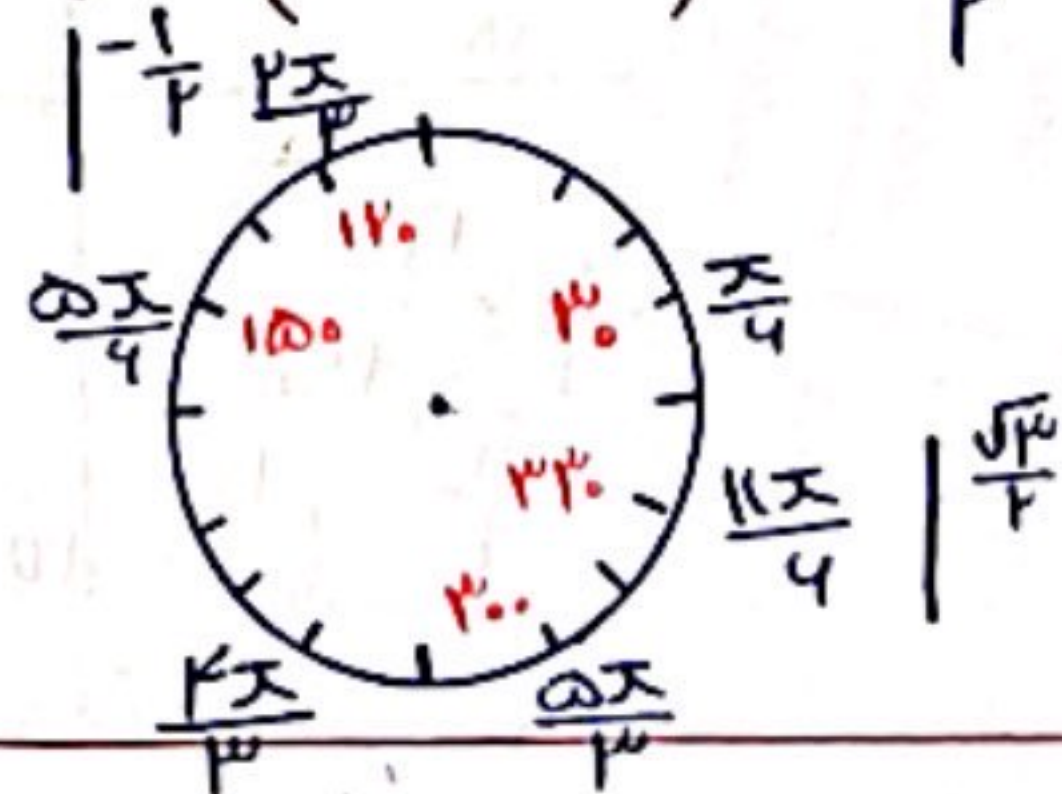


سؤال ٨

سؤال ٩

الف) $\frac{\pi}{3} = 12^\circ \rightarrow -(\cos 12^\circ) = \frac{1}{2} \rightarrow 30^\circ, 150^\circ \Rightarrow \frac{\pi}{4}, \frac{5\pi}{4}$

ب) $\frac{11\pi}{4} = 33^\circ \rightarrow -(\cos 33^\circ) = \frac{-\sqrt{3}}{2} \rightarrow 30^\circ, 150^\circ \Rightarrow \frac{5\pi}{3}, \frac{4\pi}{3}$



سؤال ١٠

الف) $\frac{\sqrt{2}}{2} = 315^\circ \rightarrow \cot 315^\circ = -1 = \cos 180^\circ$

ب) $-(\cos 150^\circ) = \frac{\sqrt{3}}{2} \rightarrow \sin 40^\circ, 120^\circ$

