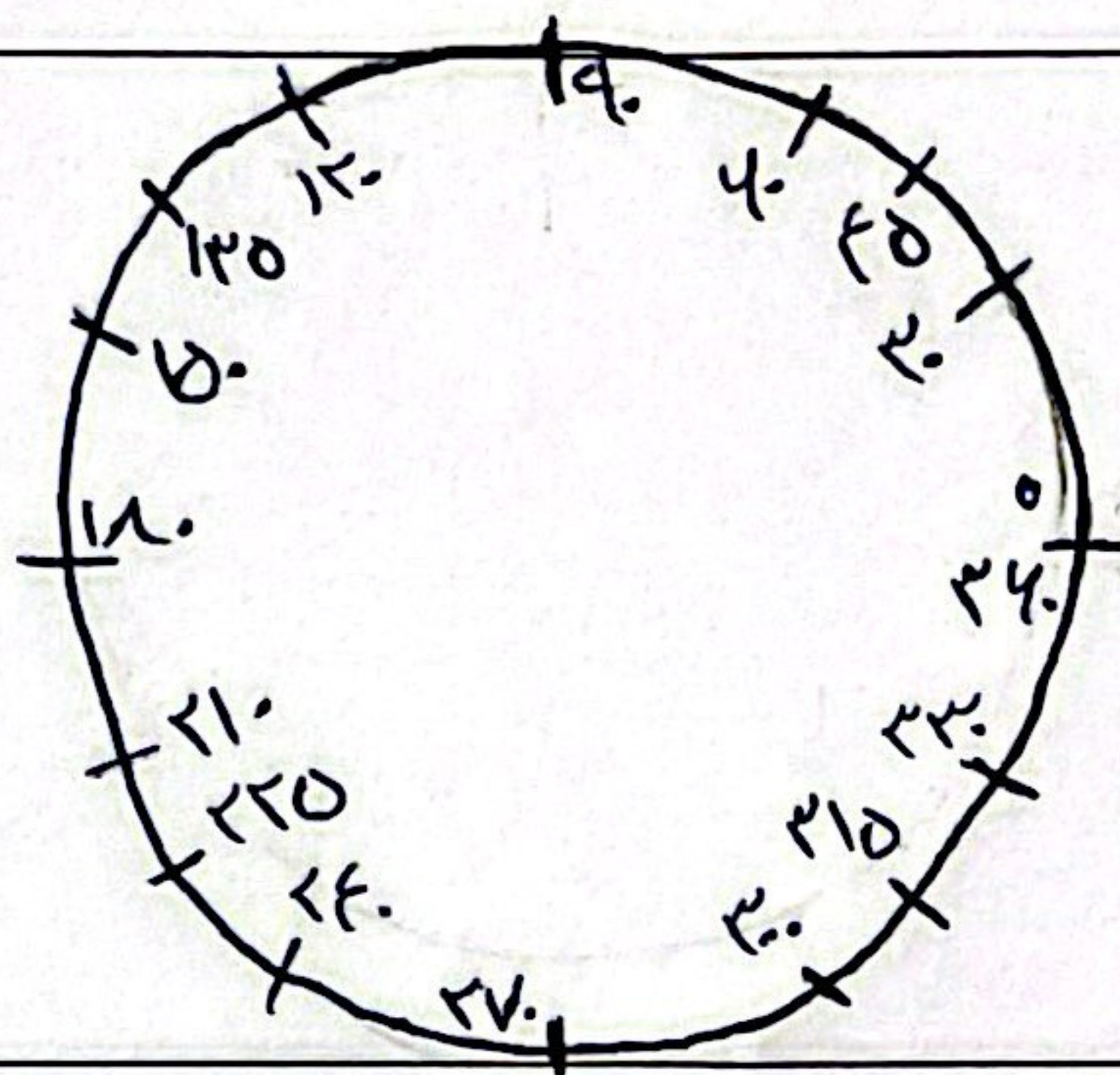


نام و نام خانوادگی

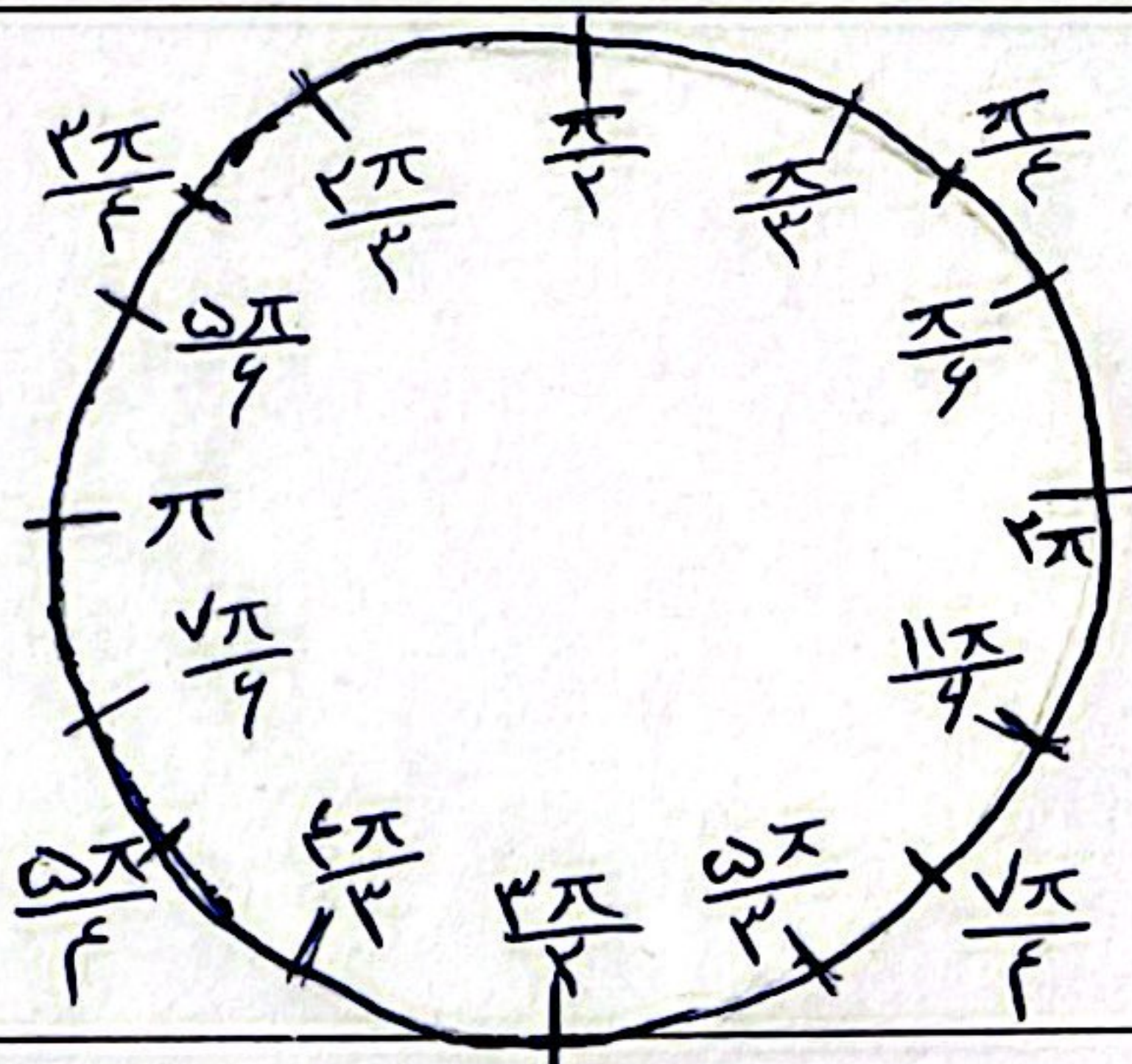
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پاسخنامه تشریحی تکلیف شماره ۲..... کلاس



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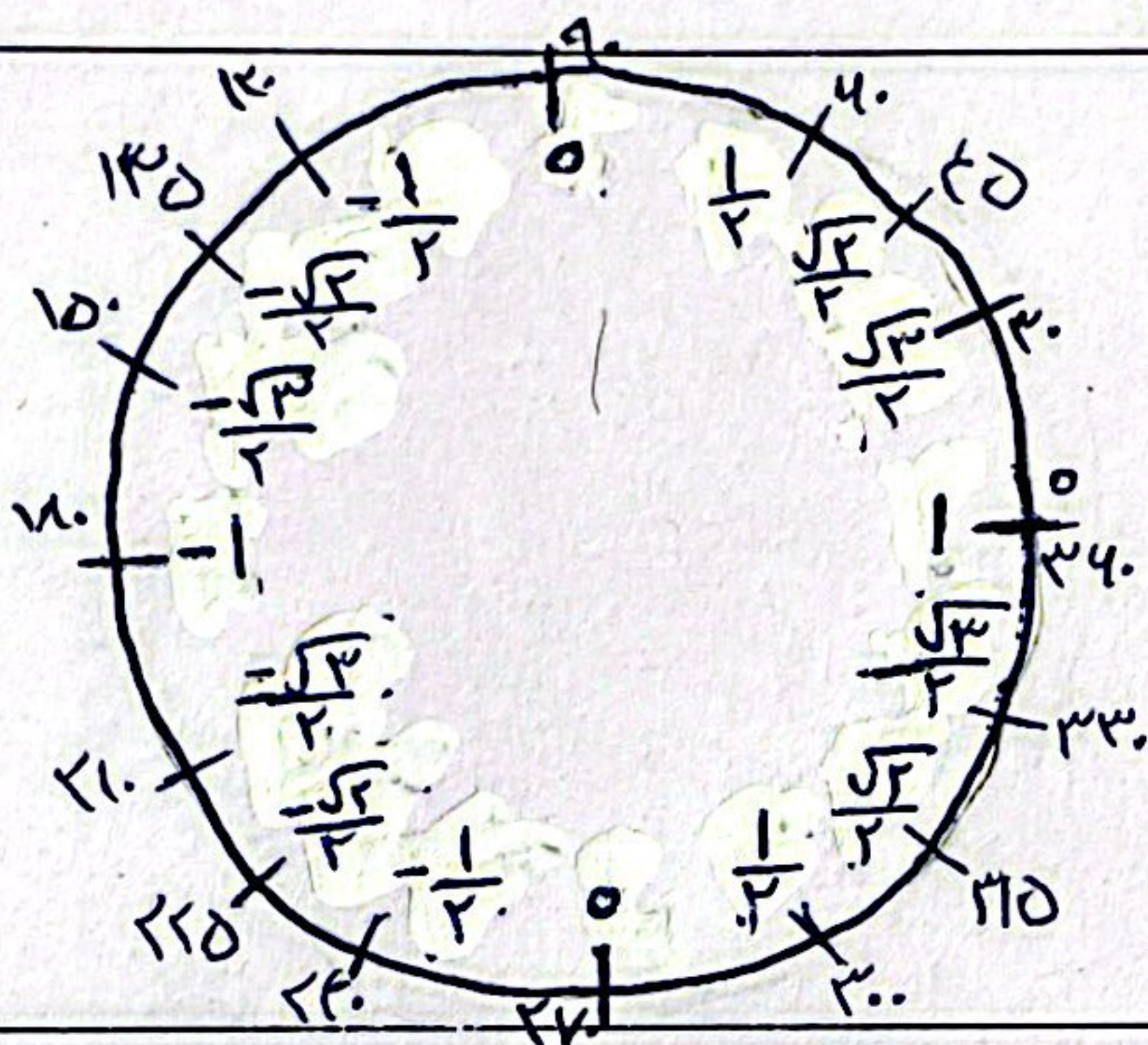
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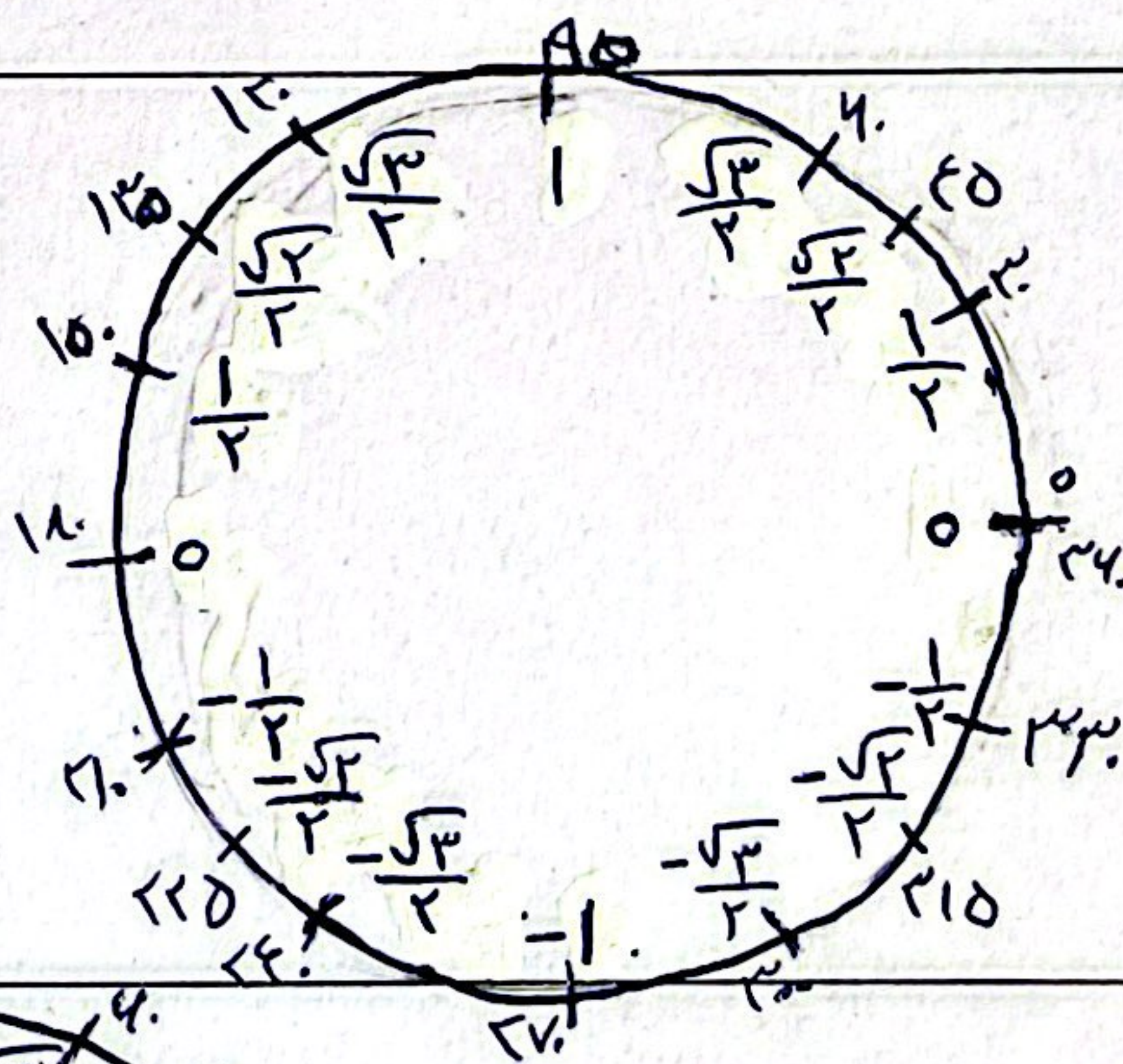
$\cos x$



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$\sin x$



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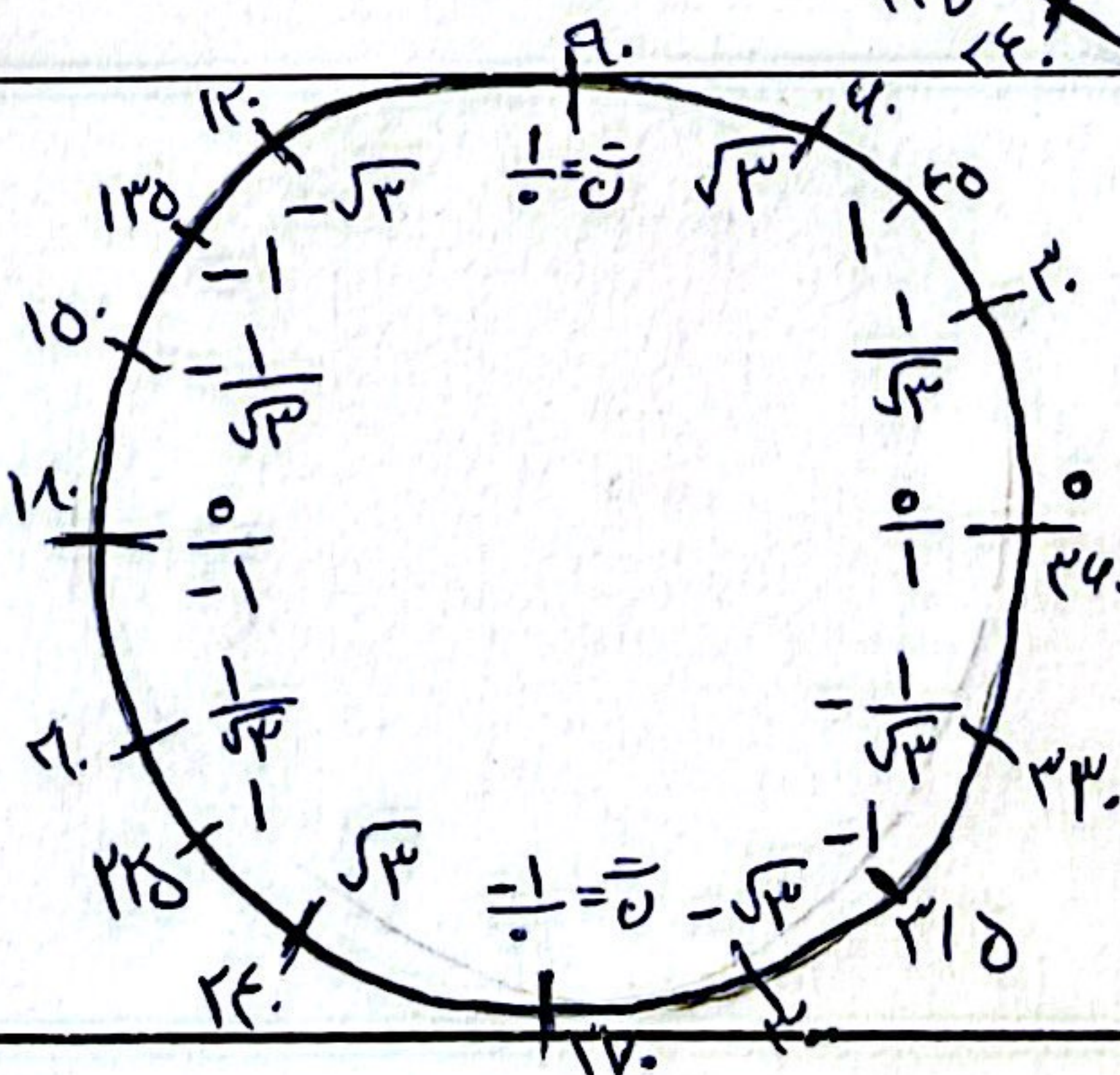
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$$\tan x = \frac{\sin x}{\cos x}$$

0 = 0
30 = 1/2
45 = 1/√2
60 = √3/2
90 = 1
120 = √3
150 = 1/2
180 = 0
210 = -1/2
240 = -√3/2
270 = -1
300 = -√3/2
330 = -1/2
360 = 0

135 = 1/√2
150 = 1/2
180 = 0
210 = -1/2
240 = -√3/2
270 = -1
300 = -√3/2
330 = -1/2
360 = 0

135 = 1/√2
150 = 1/2
180 = 0
210 = -1/2
240 = -√3/2
270 = -1
300 = -√3/2
330 = -1/2
360 = 0



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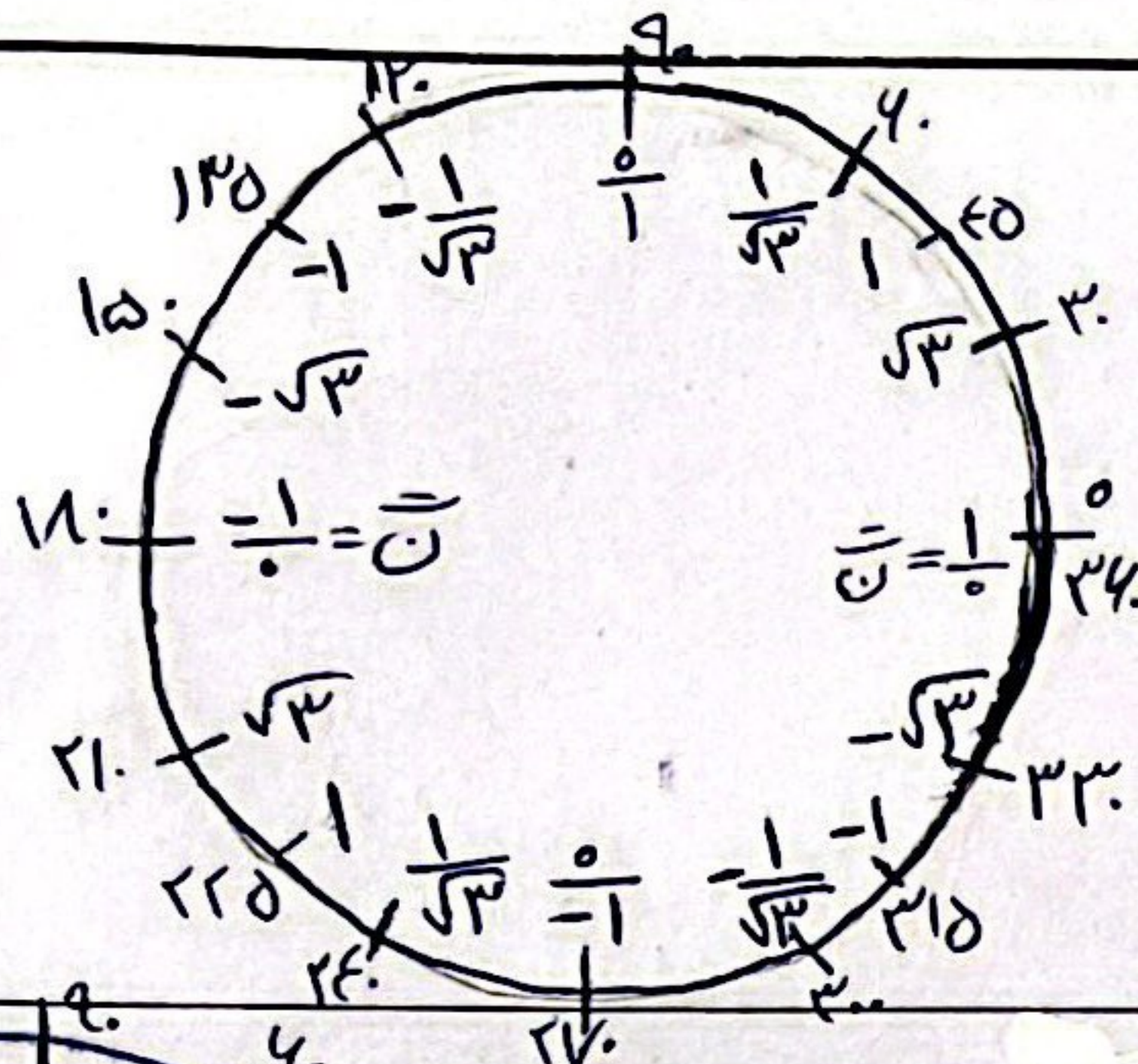
$$\cot \alpha = \frac{\cos \alpha}{\sin \alpha}$$

$$0 = \frac{1}{0} \quad 90 = \frac{0}{1}$$

$$180 = \frac{1}{0} \quad 270 = \frac{0}{-1}$$

$$45 = \frac{1}{1} \quad 135 = \frac{1}{-1}$$

$$90 = \frac{1}{0} \quad 180 = \frac{0}{1}$$



$$180 = \frac{-1}{0}$$

$$270 = \frac{0}{-1}$$

$$210 = \frac{-\sqrt{3}}{2}$$

$$315 = \frac{-\sqrt{2}}{2}$$

$$225 = \frac{-1}{\sqrt{2}}$$

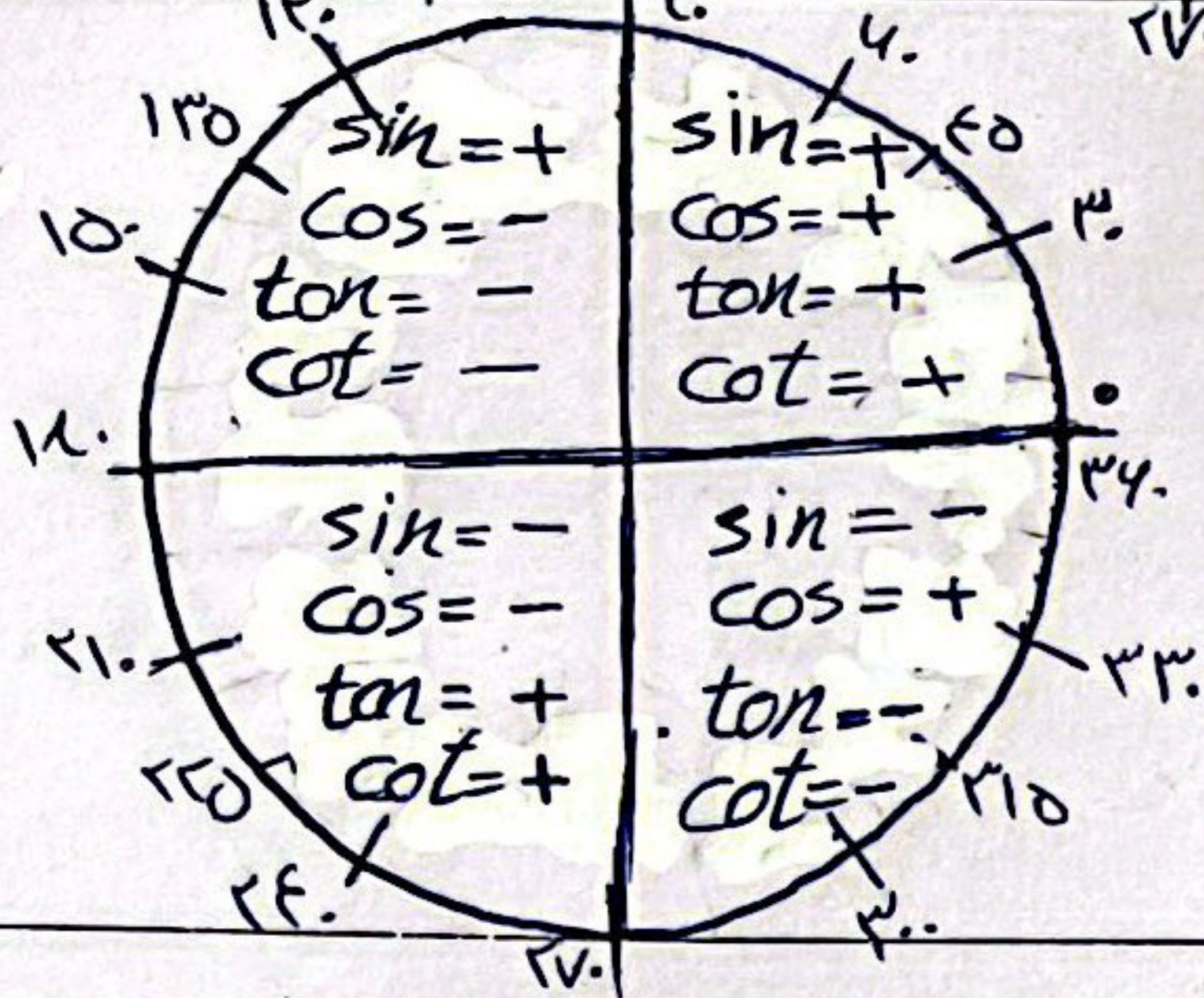
$$330 = \frac{1}{2}$$

$$240 = \frac{-\sqrt{3}}{2}$$

$$30 = \frac{1}{2}$$

$$270 = \frac{0}{-1}$$

$$360 = \frac{1}{0}$$



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

الف) 4°

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

ب) 21°

$$\tan 33^\circ = -\frac{1}{\sqrt{3}}$$

ج) 15°

$$\cot 135^\circ = -1$$

د) 315°

$$-\cos \frac{2\pi}{3} = \frac{1}{2} = \sin \frac{5\pi}{6}, \frac{\pi}{6}$$

الف) $\frac{\pi}{6}$ و $\frac{5\pi}{6}$

$$-\cos \frac{11\pi}{6} = -\frac{\sqrt{3}}{2} = \sin \frac{4\pi}{3}, \frac{5\pi}{3}$$

ب) $\frac{4\pi}{3}$ و $\frac{5\pi}{3}$

$$\cot \frac{7\pi}{4} = -1 = \cos 180^\circ \leq \pi$$

الف) $180^\circ \leq \pi$

ب) 4° و $12^\circ \leq \frac{2\pi}{3}, \frac{4\pi}{3}$

$$-\cos 150^\circ = \frac{\sqrt{3}}{2} = \sin \frac{120^\circ}{\frac{2\pi}{3}}, \frac{4^\circ}{\frac{\pi}{6}}$$