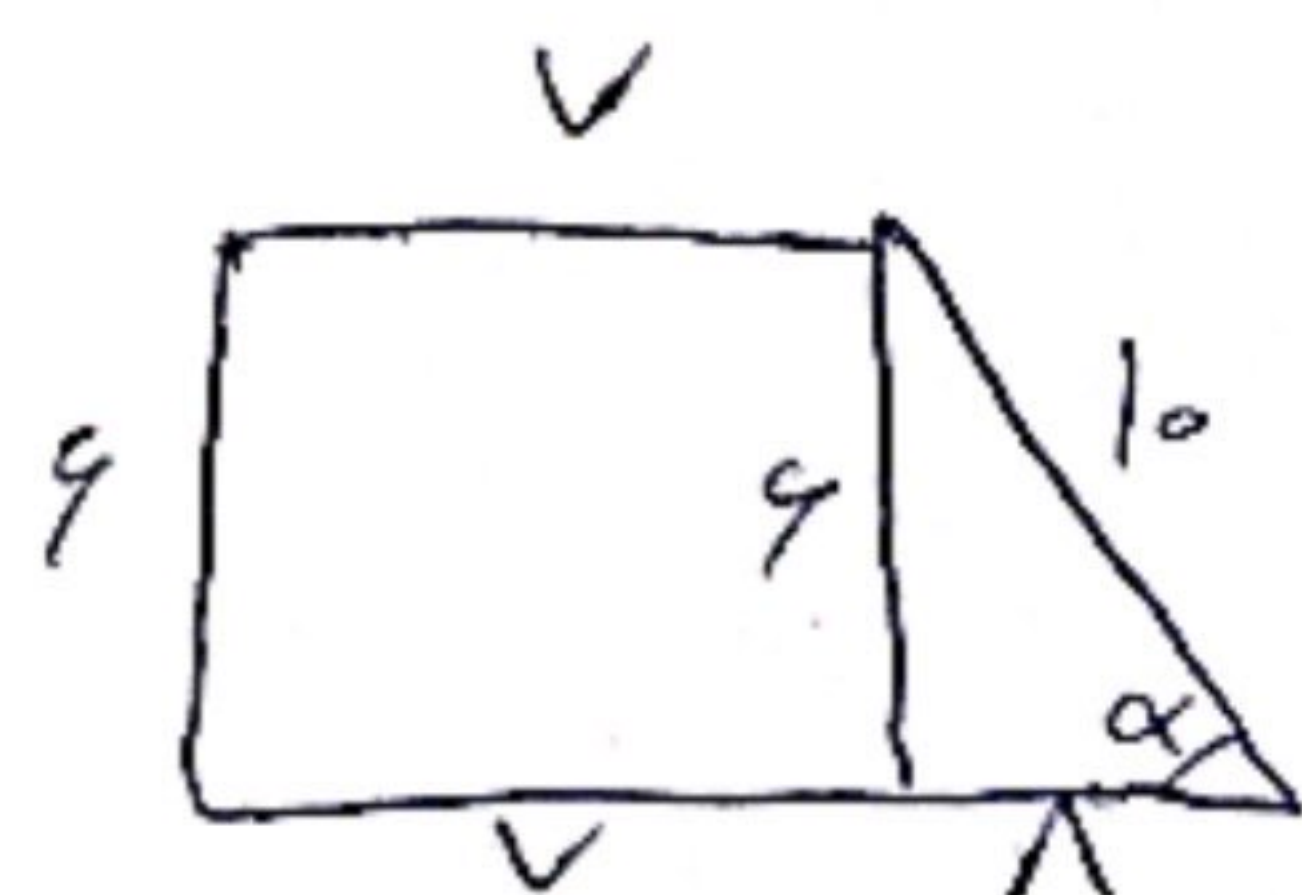


$$\frac{\sin}{\cos} = \omega \rightarrow \omega \cos = \sin$$

(۲)

$$\frac{1 \cos \theta - \cos \theta}{\omega \cos \theta - \cos \theta} = \frac{1 \cos \theta}{\cos \theta} = 1 \checkmark$$

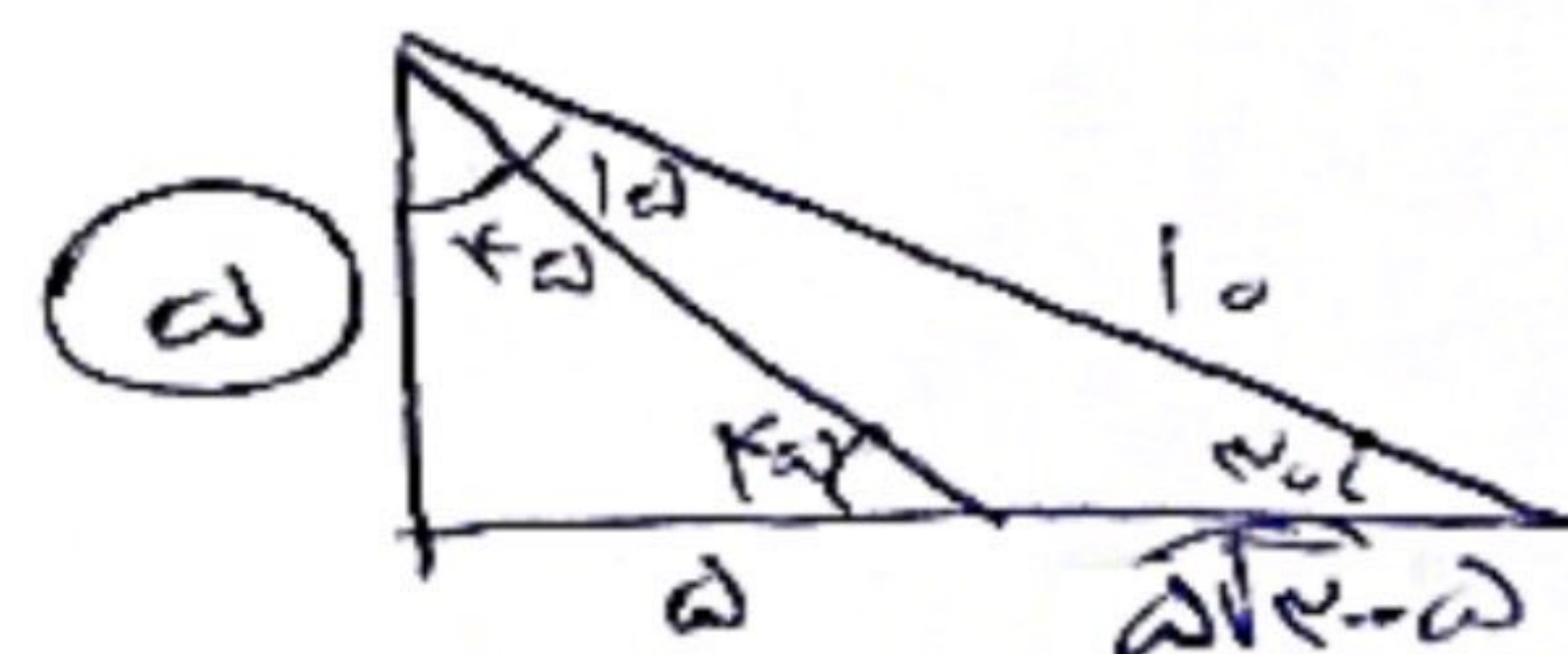


$$10^2 = 1^2 + 9^2$$

$$9 = 1$$

$$1 + 1 + 1 + 1 + 10 = 14 \checkmark$$

(۲)

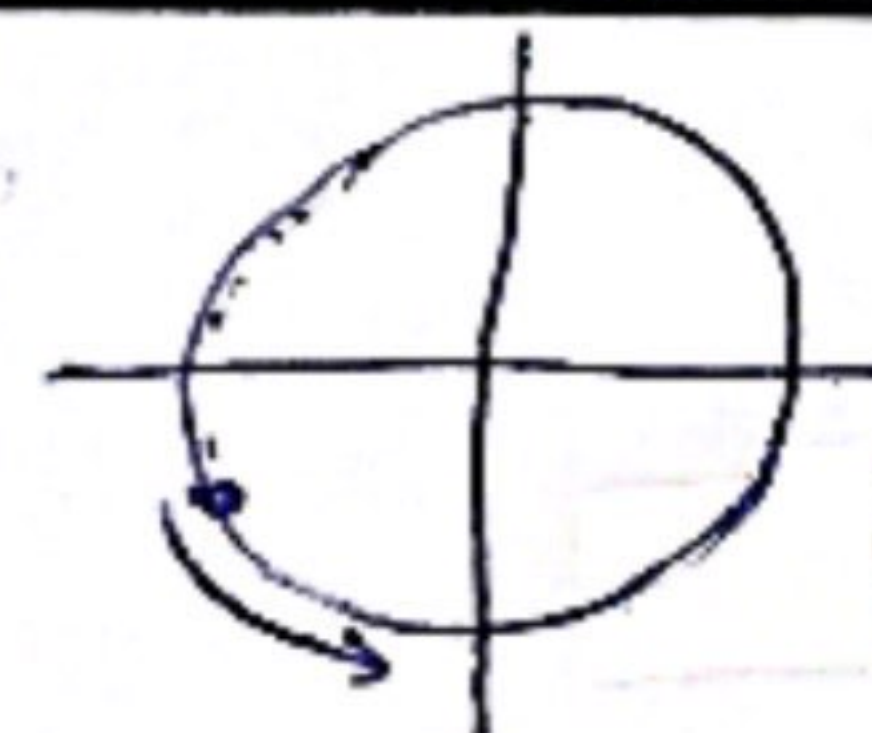


$$10^2 = 1^2 + \sqrt{10}^2$$

$$\sqrt{10} = 1 \sqrt{2}$$

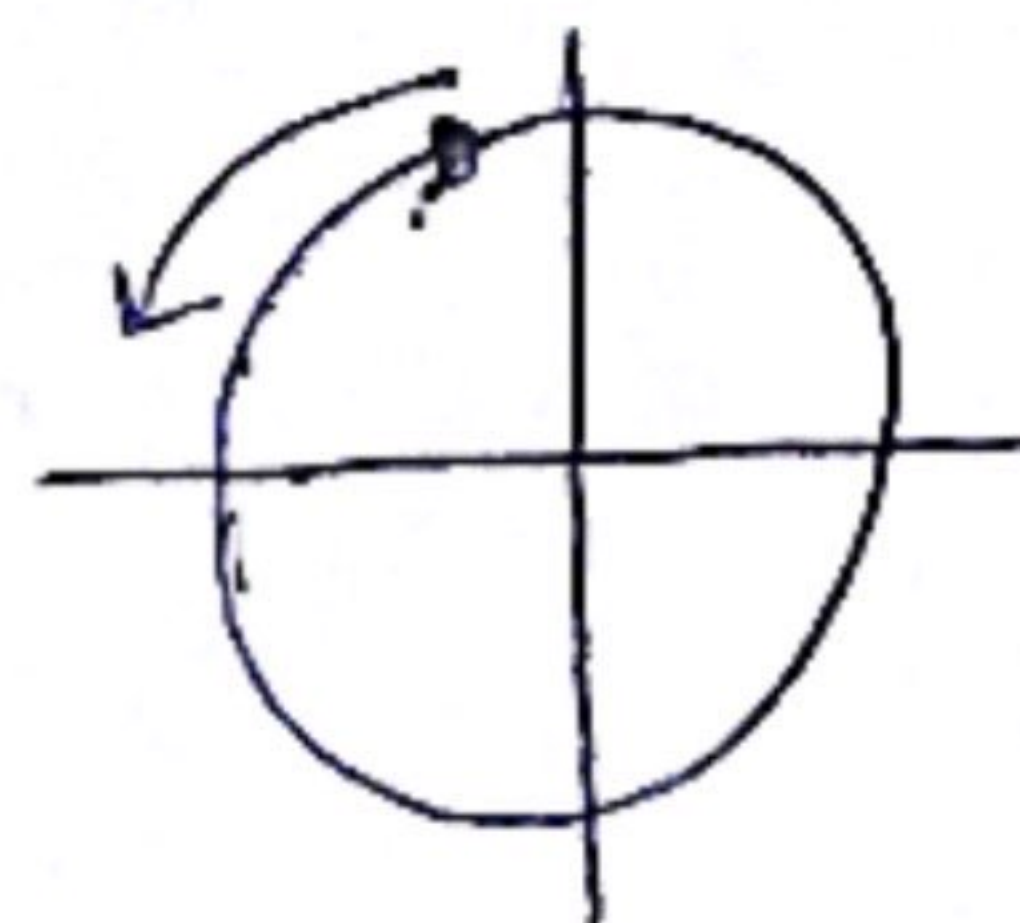
$$DC = 1 \sqrt{2} - 1 \checkmark$$

(۲)



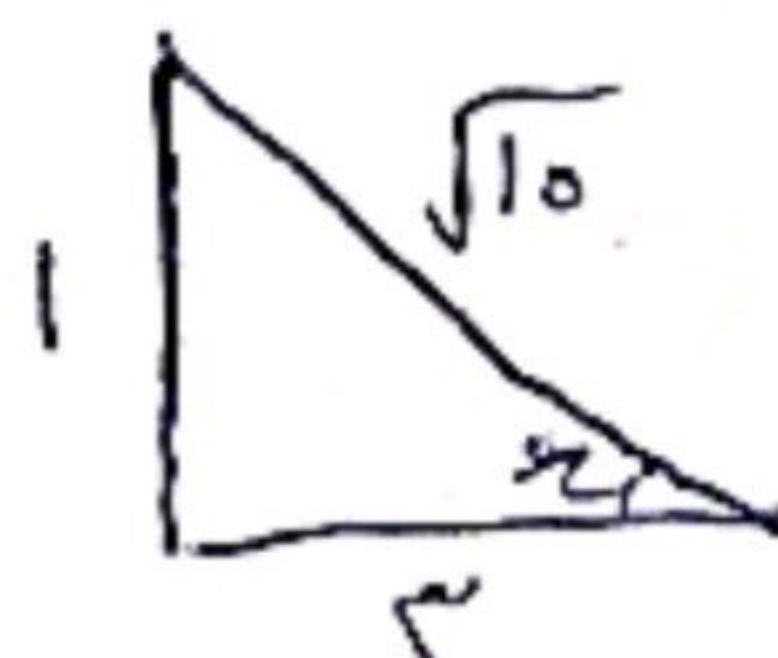
الف) ناحیه سوم

(۲)



ب) ناحیه دوم

$$\frac{\sin \alpha}{\cos \alpha} = \frac{1}{\sqrt{10}}$$



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$$\frac{1}{\sqrt{10}} = \sin \alpha \checkmark$$

(۲)

$$V^0 = \frac{\frac{\sqrt{2}}{1\text{A}^0} \times \pi}{\frac{1\text{A}^0}{2}} = \frac{\sqrt{2}\pi}{2} \checkmark$$

(۲)

$$12\omega^0 = 12\omega \times \frac{\pi}{1\text{A}^0} = \frac{25\pi}{34} \checkmark$$

$$\frac{5\pi}{12} \times \frac{1\text{A}^0}{\pi} = V\omega^0 \checkmark$$

$$\frac{5\pi}{9} \times \frac{1\text{A}^0}{\pi} = 1\text{A}^0 \checkmark$$

$$\frac{5\pi}{1} \times \frac{1\text{A}^0}{\pi} = 22\omega a \checkmark$$

(۲)

$$\frac{12\omega a}{9} \times \frac{9}{10} = \frac{12\omega a}{10} = 12\omega a \checkmark$$

$$22\omega a + 12\omega a + 1a = 4\omega a = 1\text{A}^0$$

$$a = \frac{1}{4} \checkmark$$

$$\frac{1}{2} \times \frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2} \times \frac{1}{2} - 1 + 2 = 1 \checkmark$$

(۲)

$$\frac{\frac{1}{2} + 1 + 2}{\sqrt{2} - \frac{\sqrt{2}}{2}} = \frac{\frac{5}{2}}{\frac{2\sqrt{2}}{2}} = \frac{5}{2\sqrt{2}} \checkmark$$

$$-\frac{1}{2} \times \frac{1}{2} + \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = -\frac{1}{4} + \frac{2}{4} = \frac{1}{4} \rightarrow \sin^2 \theta = \frac{1}{4} \rightarrow \sin \theta = \pm \frac{\sqrt{2}}{2} \quad (۲)$$

$$\sin 45^\circ = +\frac{\sqrt{2}}{2} \rightarrow \tan 45^\circ = 1 \checkmark$$

$$\frac{\frac{\sqrt{2}}{2} (1 - \frac{1}{2})}{(1 - \frac{1}{2})^2} = \frac{\frac{\sqrt{2}}{2}}{\frac{1}{4}} = \sqrt{2} = \tan 45^\circ \quad \frac{90}{1\text{A}^0} \times \frac{\pi}{1\text{A}^0} = \frac{\pi}{2} \checkmark$$

(۲)