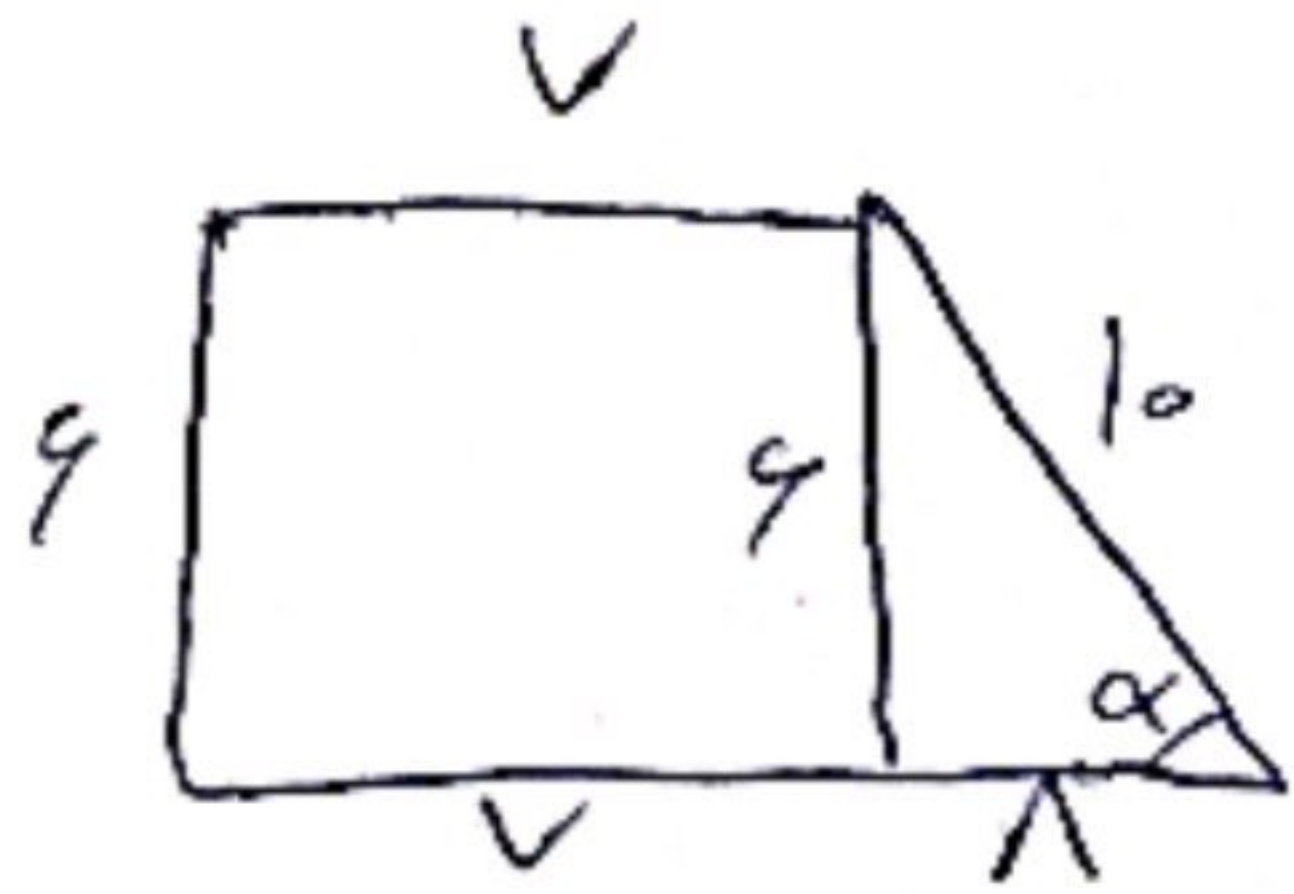


$$\frac{\sin}{\cos} = \omega \rightarrow \omega \cos = \sin$$

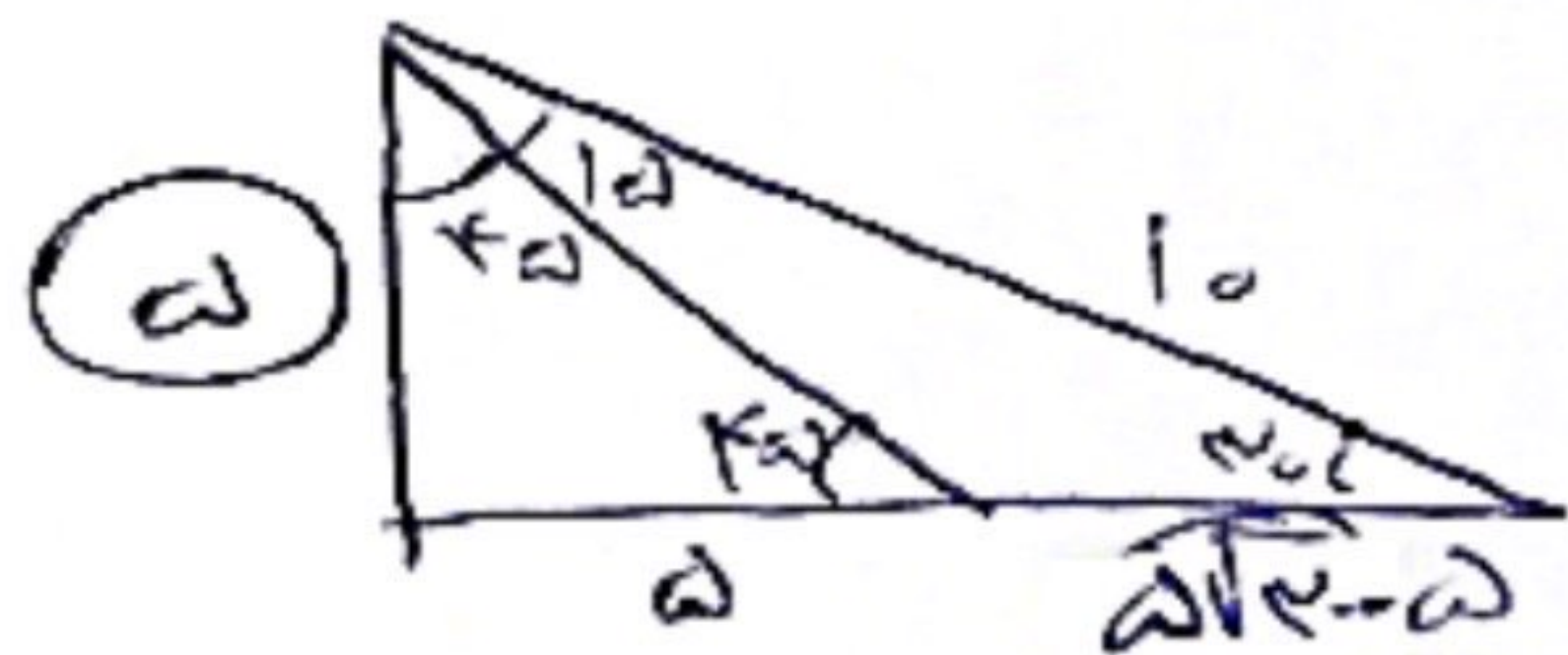
$$\frac{1 \cos \theta - \cos \theta}{\omega \cos \theta - \cos \theta} = \frac{1 \cos \theta}{\cos \theta} = 1$$



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

$$1 = 1$$

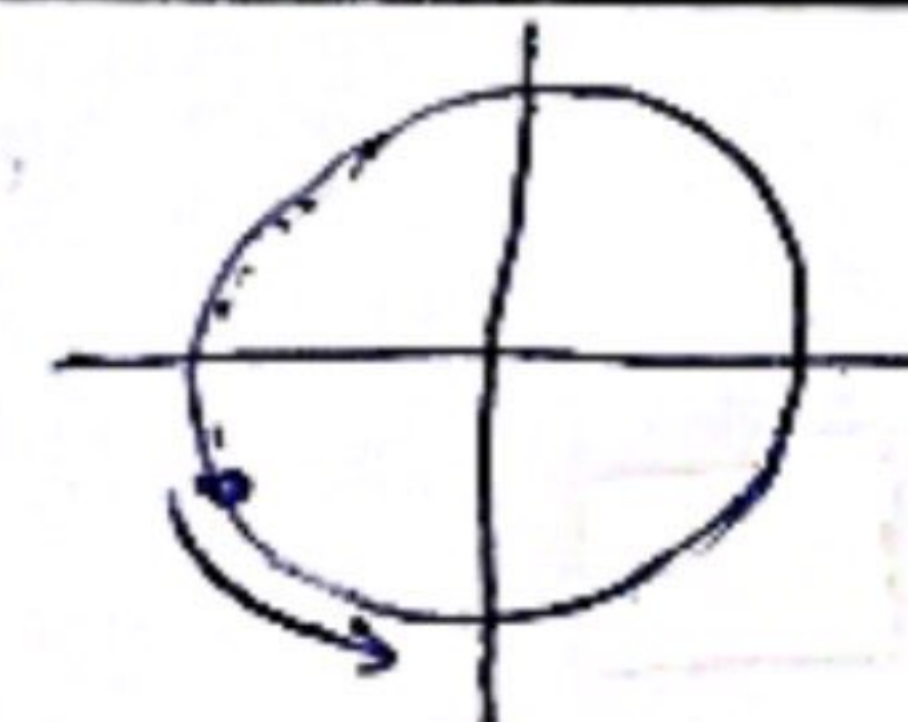
$$1 + 1 + 1 + 9 + 10 = 31$$



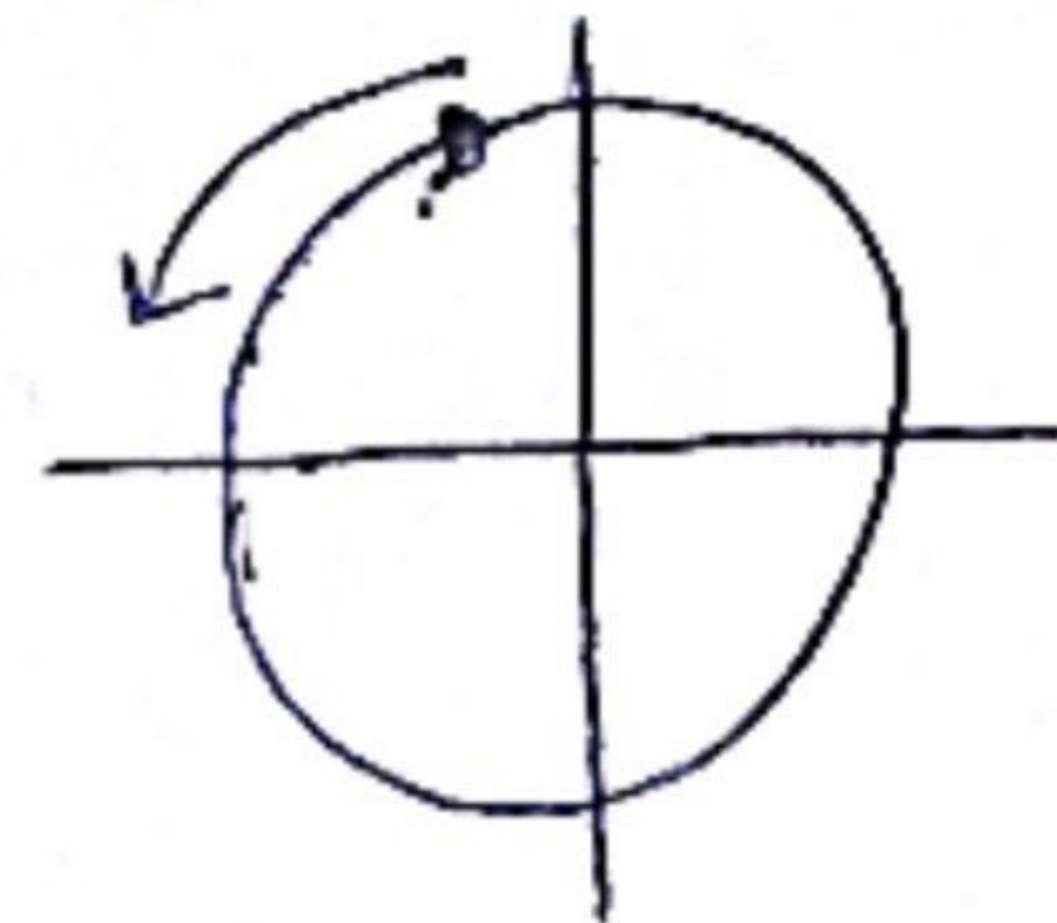
$$10^2 = \omega^2 + \sqrt{10}^2$$

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

$$DC = \omega \sqrt{2} - \omega$$

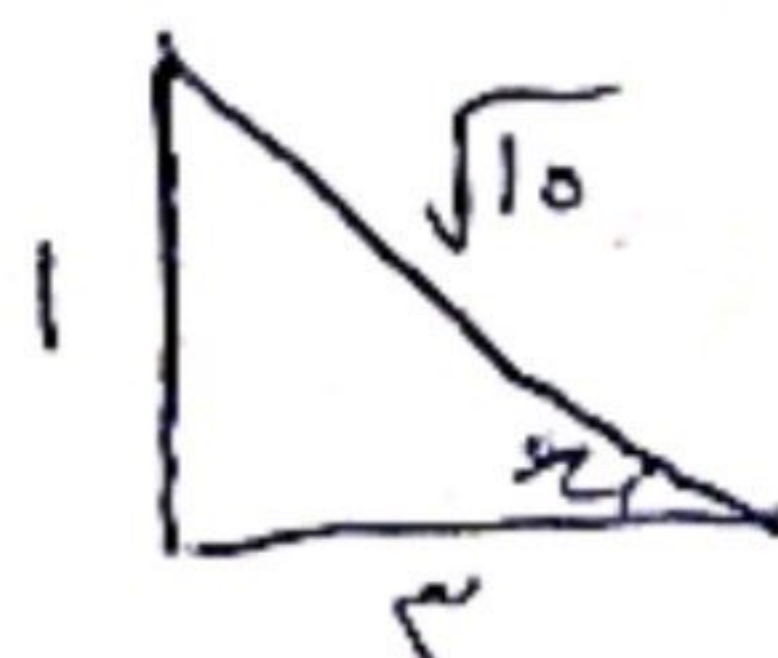


الف) ناحیه سوم



ب) ناحیه دوم

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



سیکس و کسینوس منفی است
 $\ominus \frac{1}{\sqrt{10}} = \sin \alpha$

$$V\omega^0 = \frac{\frac{\sqrt{2}}{2} \times \pi}{\frac{1}{\sqrt{2}}} = \frac{\sqrt{2}\pi}{2}$$

$$12\omega^0 = 12\omega \times \frac{\pi}{120} = \frac{\pi\omega}{10}$$

$$\frac{\omega\pi}{12} \times \frac{120}{\pi} = V\omega^0$$

$$\frac{\pi\pi}{9} \times \frac{120}{\pi} = 120^0$$

$$\frac{\omega\pi}{12} \times \frac{120}{\pi} = 120a$$

$$\frac{120a}{9} \times \frac{9}{10} = \frac{120a}{10} = 12a$$

$$120a + 120a + 12a = 252a = 120$$

$$a = \frac{10}{252}$$

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

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

$$-\frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} + \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = -\frac{1}{2} + \frac{2}{2} = \frac{1}{2} \rightarrow \sin^2 \theta = \frac{1}{2} \rightarrow \sin \theta = \pm \frac{\sqrt{2}}{2}$$

$$\sin 45^0 = +\frac{\sqrt{2}}{2} \rightarrow \tan 45^0 = 1$$

$$\frac{\frac{\sqrt{2}}{2} (1 - \frac{1}{\sqrt{2}})}{(1 - \frac{1}{\sqrt{2}})^2} = \frac{\frac{\sqrt{2}}{2}}{\frac{1}{2}} = \sqrt{2} = \tan 45^0 \times \frac{\pi}{120} = \frac{\pi}{\sqrt{2}}$$