

$$\frac{r\omega}{1\text{ rad}} = \frac{1\text{ rad}}{r}$$

$$\frac{r\omega}{r} = \omega$$

الف

$$\text{فرمولی} = \frac{D}{1\text{ rad}} = \frac{\text{rad}}{a} = \frac{G}{r}$$

$$\text{ب) } 1\text{ rad} = (\infty) \text{ rad}$$

$$\frac{1\text{ rad}}{1\text{ rad}} = \frac{1\text{ rad}}{r}$$

$$1\text{ rad} = 1\text{ rad} = \boxed{1, 1\text{ rad}}$$

$$\text{ج) } \frac{\omega r}{1\text{ rad}} = (\infty)^\circ$$

$$\frac{\omega}{1\text{ rad}} = \frac{D}{1\text{ rad}}$$

$$\frac{\omega}{1\text{ rad}} = 1\text{ rad} = \boxed{1\text{ rad}}$$

$$\text{د) } \frac{r\omega}{a} \text{ rad} = (\infty)^\circ$$

$$\frac{r\omega}{a} = \frac{D}{1\text{ rad}}$$

$$= \frac{r}{a} = \frac{D}{1\text{ rad}}$$

$$D = \frac{r \cdot \omega}{a} = \boxed{1\text{ rad}}$$

$$(1\text{ rad})^\circ, \frac{1\text{ rad}}{a} G, \frac{a\omega}{r} \text{ rad}$$

$$\left(\frac{1\text{ rad}}{a} \right) \frac{a\omega}{r} = \frac{D}{1\text{ rad}} \rightarrow D = \frac{1\text{ rad} \cdot \omega}{r} = \boxed{1\text{ rad}}$$

$$\frac{a\omega}{r} = \frac{D}{1\text{ rad}} \quad \frac{a}{r} = \frac{D}{1\text{ rad}} \quad D = (r\omega, a)$$

$$1\text{ rad} + r\omega + 1\text{ rad} = 2\text{ rad}$$

$$\boxed{a = 1, r}$$

$$\text{الف) } \left(\frac{1}{r} \times \frac{r}{r} \right) - \left(\frac{r}{r} \times \frac{1}{r} \right) = \left(1 - \frac{1}{r} \right) = \frac{r-1}{r} = \boxed{\frac{r-1}{r}}$$

$$\text{ب) } \frac{\left(\frac{1}{r} \right)^2 + 1 + (r)^2}{r - \frac{1}{r}} = \frac{\frac{1}{r^2} + 1 + r^2}{\frac{r^2 - 1}{r}} = \frac{1 + r^2 + \frac{1}{r^2}}{r^2 - 1} = \boxed{\frac{1 + r^2 + \frac{1}{r^2}}{r^2 - 1}}$$

$$\frac{1}{r^2} + 1 + r^2 = \frac{1 + r^2 + \frac{1}{r^2}}{r^2}$$

$$= \frac{1 + r^2 + \frac{1}{r^2}}{r^2}$$

$$\boxed{\frac{1 + r^2 + \frac{1}{r^2}}{r^2}}$$

$$\begin{aligned} \tan \theta &= \frac{1}{r} \\ \tan \theta &= r \\ \tan \theta &= 1 \\ \cot \theta &= \frac{1}{r} \end{aligned}$$

$$\left(-\frac{1}{r} \times \frac{1}{r} \right) + \left(\frac{r}{r} \times \frac{r}{r} \right) = \sin^2 \theta$$

$$-\frac{1}{r^2} + \frac{r^2}{r^2} = \frac{r^2}{r^2} = 1$$

$$\sin^2 \theta = \frac{1}{r^2} \rightarrow \sin \theta = \pm \frac{1}{r} = \pm \frac{r}{r} = \pm 1$$

$$\tan \theta = \frac{r}{r} = \boxed{1}$$

$$\theta = 45^\circ$$

$$\frac{r \left(\frac{1}{r} \right) \left(1 - \frac{1}{r} \right)}{\left(1 - \frac{1}{r} \right)}$$

$$= \frac{r}{r} \times \frac{r}{r} = \boxed{\frac{r}{r}}$$

$$r \tan \theta = \tan \theta$$

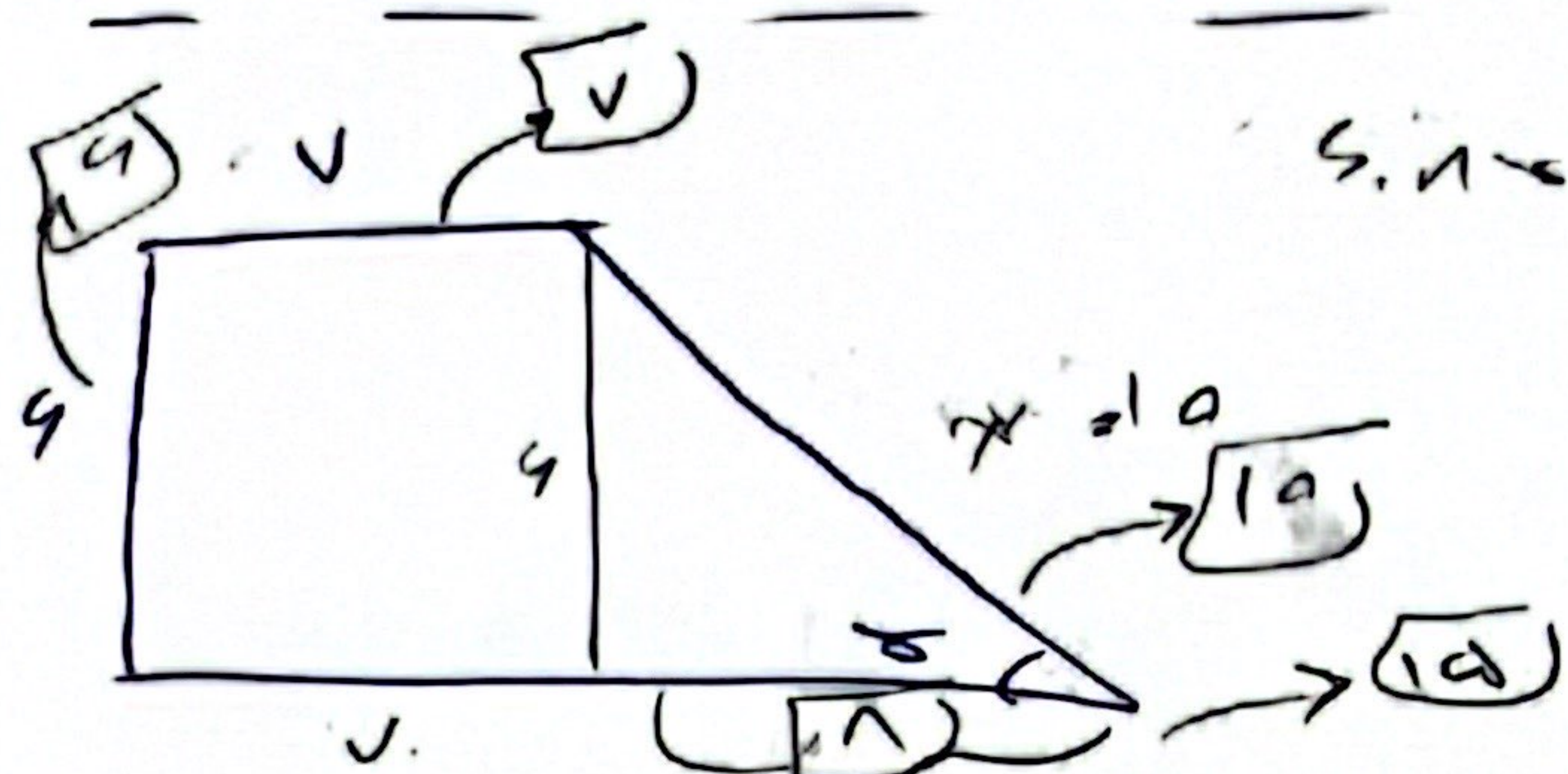
$$\boxed{5}$$

$$\frac{\sin \theta}{\cos \theta} = \frac{r}{r} = r (\tan \theta)$$

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

$$\sin \theta = \omega \cos \theta$$

$$\frac{r(\omega \cos \theta) - \cos \theta}{\omega \cos \theta - \cos \theta} = \frac{1 \cos \theta}{\cos \theta} \quad \boxed{1.4}$$

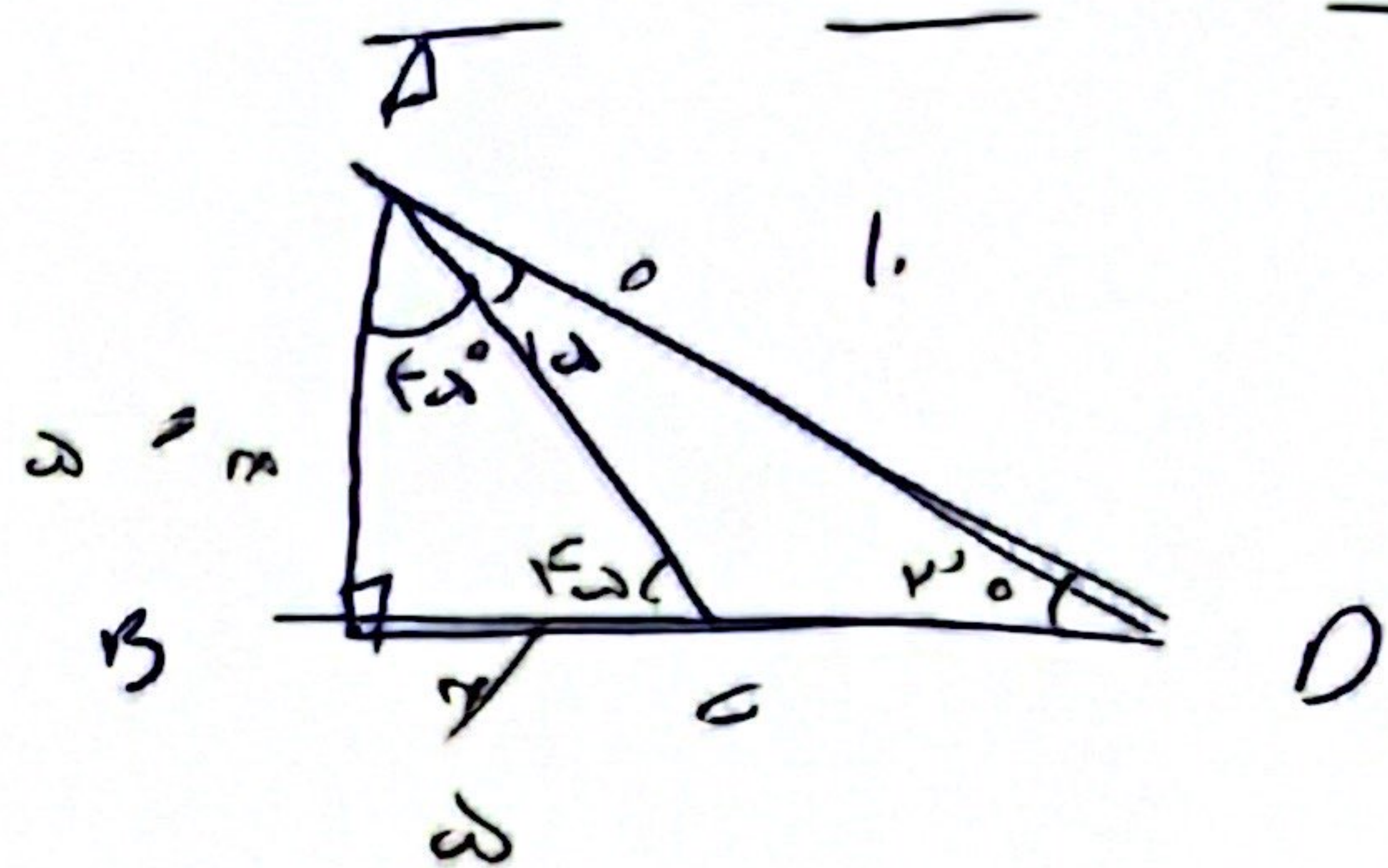


$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{4}{5} = \frac{4}{5}$$

$$\omega = 10$$

$$\text{base} = 10 + 10 + 4 + 4 = 38$$

$$100 - 44 = 56 \quad \sqrt{56} = 7.48$$



$$\sin \theta = \frac{1}{2} = \frac{\omega}{10} \rightarrow \omega = 5$$

$$\frac{\omega}{\omega + c} = \tan \theta = \frac{1}{5}$$

$$\omega \sqrt{5} = \omega + c$$

$$\omega \sqrt{5} - \omega = c$$

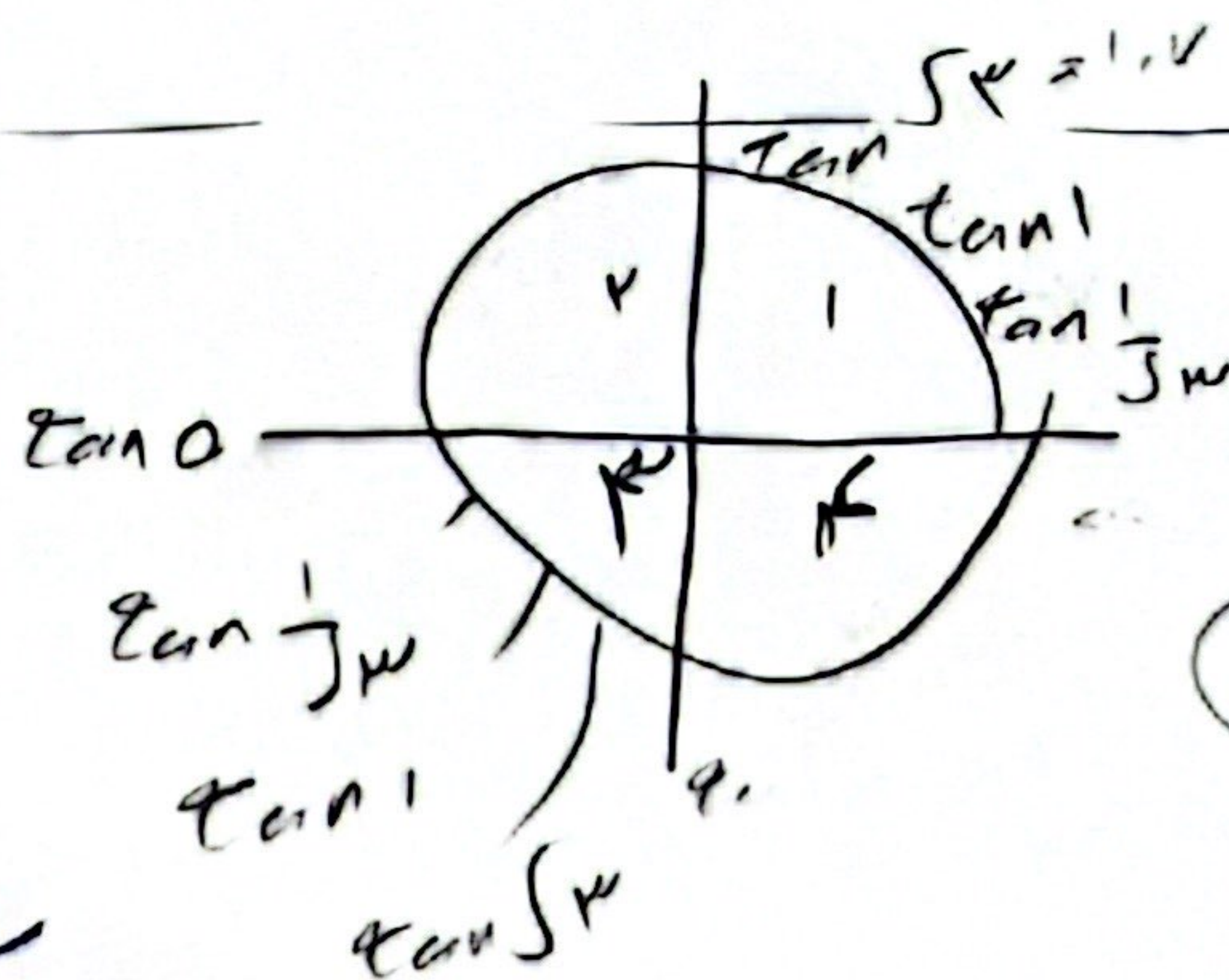
$$c = \omega \sqrt{5} - \omega$$

$$\omega(\sqrt{5} - 1) = c$$

الف) اول

ب) ر

$$\tan \theta = \frac{1}{\sqrt{5}}$$



$$0 \leq \tan \frac{1}{\sqrt{5}} < 1$$

$$0 < \sin \theta \leq \frac{\sqrt{5}}{5}$$

شماره ۱، ۲، ۳، ۴، ۵، ۶، ۷، ۸، ۹، ۱۰