

$$(1) \quad \frac{v \cdot \kappa}{h \cdot \omega} = \boxed{\frac{q \cdot \kappa}{\epsilon}} \quad \rightarrow \quad \frac{v \cdot \omega \cdot \kappa}{h \cdot \omega} = \boxed{\frac{v \cdot \omega \cdot \kappa}{\epsilon \cdot \omega}} \quad 2.) = \frac{\omega \cdot \kappa}{\frac{1}{\epsilon}} \times \frac{h \cdot \omega}{\kappa}$$

$$2) \quad \frac{v \cdot \kappa}{q} \times \frac{h \cdot \omega}{\kappa} = \boxed{h \cdot \omega}$$

$$\frac{p}{h \cdot \omega} = \frac{v \cdot \omega \cdot q}{\epsilon \cdot \omega} \rightarrow \frac{v \cdot \omega \cdot q \times h \cdot \omega}{q \times \epsilon \cdot \omega} = \frac{h \cdot v \cdot \omega \cdot q}{\epsilon}$$

$$\frac{1}{\omega} \times \frac{1}{q} \times \frac{1}{\epsilon} \times \frac{1}{\omega} = \frac{1}{\omega^2 \cdot q \cdot \epsilon}$$

$$\frac{a \cdot \kappa}{\frac{h}{\kappa}} = \frac{a \cdot \kappa}{h} = \frac{p}{h \cdot \omega} = \frac{h \cdot v \cdot \omega \cdot q}{\epsilon} \Rightarrow v = \frac{p}{h \cdot \omega}$$

$$\boxed{a = \frac{h}{m \cdot \lambda}}$$

(در اینجا)

$$(3) \quad \begin{cases} \cos \epsilon = \sin \theta \\ \cos \theta = \sin \epsilon \end{cases} \rightarrow \frac{\sin^2 \epsilon}{\cos^2 \epsilon} = \frac{\sin^2 \theta}{\cos^2 \theta} \Rightarrow \tan^2 \epsilon = \tan^2 \theta \Rightarrow \tan \epsilon = \tan \theta$$

ب)

$$\frac{\sin^2 \epsilon}{\cos^2 \epsilon} = \frac{\sin^2 \theta}{\cos^2 \theta} \rightarrow \frac{1}{\epsilon} \times \frac{\epsilon}{\epsilon} = \frac{1}{\epsilon} = \sin^2 \theta$$

$$\frac{1}{\epsilon} = \sin^2 \theta$$

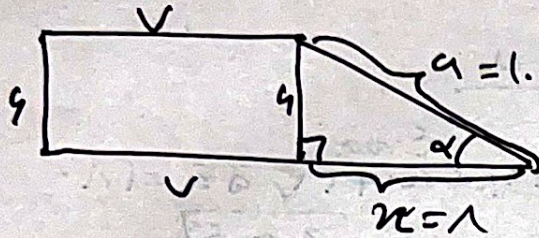
$$\boxed{\tan \epsilon = 1}$$

$$\theta = \epsilon = 45^\circ, \sin \theta = \frac{1}{\sqrt{2}} \quad (\theta \text{ حاده})$$

$$\frac{\tan^2 \epsilon \cdot (1 - \cot^2 \epsilon)}{(1 - \cot^2 \epsilon)} = \tan^2 \theta$$

(5)

$$\frac{\frac{\cancel{\epsilon} \sin \theta}{\cancel{\cos \theta}} - \frac{\cancel{\cos \theta}}{\cancel{\cos \theta}}}{\frac{\cancel{\sin \theta}}{\cancel{\cos \theta}} - \frac{\epsilon \cancel{\cos \theta}}{\cancel{\cos \theta}}} = \frac{\frac{1}{\cancel{\cos \theta}}}{\frac{\cancel{\cos \theta}}{\cancel{\cos \theta}}} = \boxed{1}$$

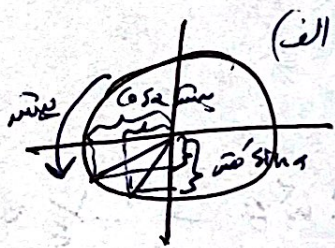
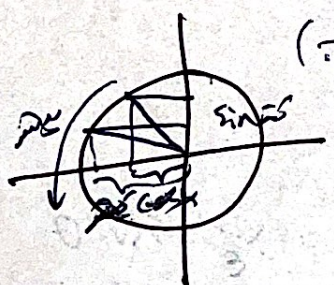


$$\sin \alpha = \frac{\text{مقابل}}{\text{وتر}} = \frac{4}{4}$$

$$\frac{4}{4} = \frac{4}{4} \Rightarrow \alpha = 1$$

$$(1)^2 = (4)^2 + (n)^2 \rightarrow n^2 = 24 \rightarrow n = \sqrt{24}$$

$$\boxed{38} = \frac{4 + \sqrt{24} + 4 + 1}{2} \cdot 2$$



(9)
الق) تاجه سوم
ب) تاجه دوم

$$\boxed{10}$$