

$$\sin A = \sin 40^\circ = \frac{\sqrt{r}}{r} \quad \sin B = \frac{\sqrt{r}}{r} \times \frac{\sqrt{r}}{r} = \frac{\sqrt{r}}{r}$$

$$\hookrightarrow \sin B = \frac{\sqrt{r}}{r} \quad B = 40^\circ$$

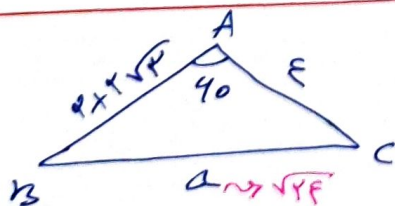
$$n = \frac{\sqrt{\mu}}{r} \times r\sqrt{\mu} = \mu$$

صانع روبروی ۴۰٪ ، $\frac{\sqrt{2}}{r}$ و تراست ←

$$\frac{C}{\sin C} = \frac{b^r - r}{\sin B}$$

$$\cos \beta = \frac{qvr}{\lambda E_0} = \frac{141}{150} = \frac{r_E}{r_0} = \frac{1}{10} \rightarrow \frac{E}{\omega} \quad \sin^2 \alpha + \cos^2 \alpha = 1 \quad \sin^2 \beta = 1 - \cos^2 \beta$$

$$\sin^2 B = 1 - \frac{14}{25} \rightarrow \frac{9}{25} \quad \sin B = \frac{3}{5}$$



$$a^r = 14 + \varepsilon + 12 + 1\sqrt{3} - (14 - 14\sqrt{3}) \times \frac{1}{r}$$

$\alpha^T = \mu^T + \lambda \sqrt{F} - \lambda - \lambda \sqrt{\mu} \quad \alpha^T = \mu^T \quad (\alpha = \sqrt{F})$

$$\frac{\sqrt{rE}}{\sin A} = \frac{F}{\sin B}$$

$$\frac{\sqrt{\frac{\epsilon}{\mu}}}{\frac{\sqrt{\mu}}{\epsilon}} = \frac{\epsilon}{\sin \theta}$$

$$\frac{c/\sqrt{r}}{1} = \frac{c}{\sin r}$$

$$\sin \beta = \frac{v}{c} \quad \beta = \sin^{-1} \frac{v}{c}$$

$$\begin{aligned} \phi_0 + \varepsilon\omega &= 10\omega \quad (\hookrightarrow) \\ 11\omega - 10\omega &= \psi\omega \\ (B = \varepsilon\omega) \quad (C = \psi\omega) \end{aligned}$$

(9)

$$BCEA \quad a^2 = 4^2 + 10^2 - 2(4)(10) \cos 40^\circ$$

(الف) (✓)

$$a^2 = 16 - 10 \frac{\cos 40^\circ}{\frac{1}{r}} \quad a^2 = 84 \quad (a = r)$$

$$S = \frac{1}{r} \times \omega \times \Lambda \times \sin 40^\circ \rightarrow r_0 \times \frac{\sqrt{r}}{r} = (10\sqrt{r})$$

(ج)

$$\frac{(b+c)^2 - a^2}{bc(\cos A + 1)} \rightarrow \frac{b^2 + c^2 + 2bc - (b^2 + c^2 - 2bc \cos A)}{bc(\cos A + 1)} \quad \frac{\cancel{b^2} + \cancel{c^2} + 2bc - \cancel{b^2} - \cancel{c^2} + 2bc \cos A}{bc(\cos A + 1)} \quad (1)$$

$$\frac{2bc + 2bc \cos A}{bc(\cos A + 1)} = \frac{2bc(1 + \cos A)}{bc(1 + \cos A)} = (2)$$

$$\frac{a^2 + b^2 - c^2}{a+b-c} = a^2 \rightarrow \frac{(\cancel{a+b-c})(\cancel{a+b-c} + c^2 + c(a+b))}{(\cancel{a+b-c})} = a^2$$

(د)

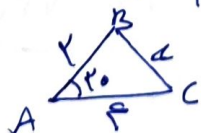
$$a^2 = a^2 + b^2 + 2ab + c^2 + ca + cb \quad \cancel{b^2} + \cancel{c^2} - 2bc \cos A = \cancel{a^2} + \cancel{b^2} + \cancel{c^2} + ca + cb$$

$$\cos A = \frac{2ab + ca + cb}{-2bc}$$

$$S = (1 + r \cos \alpha)(r - r \cos \alpha) \times \frac{1}{r} \times \frac{1}{r} = r \quad r - r \cos \alpha + r \cos \alpha - r \cos \alpha = 1$$

(هـ)

$$\omega \cos \alpha = \omega \rightarrow \cos \alpha = 1$$



$$a^2 = 8 + 16 - 16(\cos 10^\circ)$$

$$a^2 = 10 - 16\sqrt{r}$$