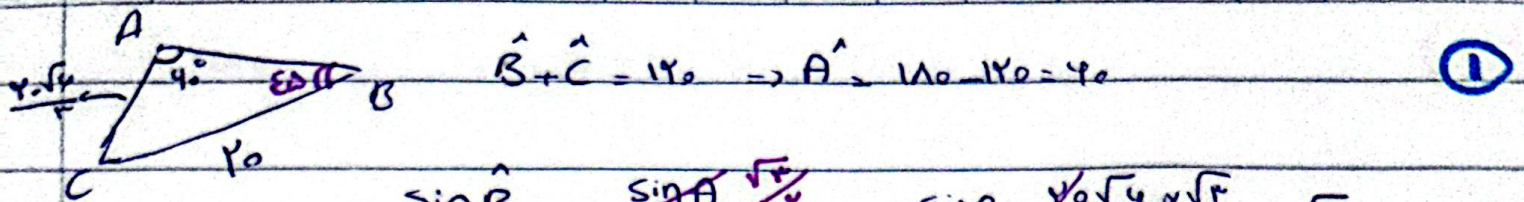


# ایسٹن ہیک



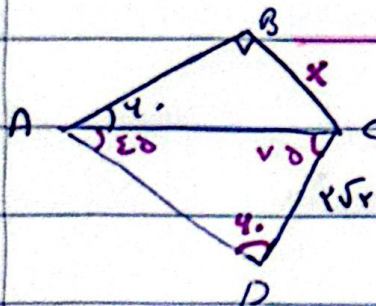
$$\hat{B} + \hat{C} = 140 \Rightarrow \hat{A} = 180 - 140 = 40$$

①

$$\frac{\sin \hat{B}}{\frac{r_0 \sqrt{4}}{r}} = \frac{\sin \hat{A} \frac{\sqrt{r}}{r}}{r_0} \Rightarrow \sin B = \frac{r_0 \sqrt{4} \times \sqrt{r}}{r \times r \times r_0} = \frac{\sqrt{r}}{r}$$

$$\Rightarrow C = 180 - (\hat{A} + 40) = \hat{C} = 140$$

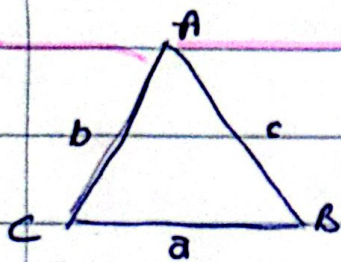
$$B = 40$$



$$\frac{\sin \hat{A}}{r\sqrt{r}} = \frac{\sin 40 \frac{\sqrt{r}}{r}}{AC} \Rightarrow \frac{\sqrt{r} \times r\sqrt{r} \times r}{\sqrt{r} \times r} = r\sqrt{r}$$

②

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



$$\frac{1}{(b-r)} \frac{\sin c}{\sin B} = c$$

$$\frac{c}{\sin c} = \frac{b}{\sin B} \Rightarrow \frac{c}{\sin c} = \frac{b \sin c}{\sin B}$$

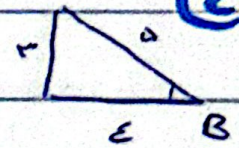
$$(b-r) \frac{\sin c}{\sin B} = \frac{b \cdot \sin c}{\sin B}$$

$$b-r = b \quad b-r-b = -r \quad b = +r$$

$$r_0^r + r_1^r = r(r_0)(r_1) C \cdot \sin B = 1r^r$$

$$C \cdot \sin B = \frac{r}{a}$$

③



$$a^r = \frac{F^r}{b^r} + \frac{(r + r\sqrt{r})^r}{c^r} - r(\epsilon)(r + r\sqrt{r}) \times \frac{(-540)}{\frac{1}{2}} \quad \textcircled{5}$$

$$a = \sqrt{10 + F + 10 + 10\sqrt{F} - 1 - 10\sqrt{F}} = \sqrt{2\epsilon} = 2\sqrt{4} \quad \text{الف.}$$

$$\frac{2\sqrt{4}}{\frac{1}{\sqrt{r}}} \Rightarrow \frac{F}{\sin \theta} \Rightarrow \frac{\epsilon \sqrt{F}}{2\sqrt{4}} = \frac{\sqrt{r}}{r} \Rightarrow \textcircled{B = \epsilon \theta} \quad \text{ب.}$$

$\underline{\underline{C = 100}}$

sam

$$\frac{BC^2}{\epsilon} = \frac{AB^2}{1} + \frac{AC^2}{4} - 2(AB)(AC)C \cdot s A \quad C \cdot s A = \frac{1}{\epsilon} \quad (7)$$

$$\frac{DE^2}{?} = \frac{AD^2}{14} + \frac{AE^2}{34} - 2(AD)(AE)C \cdot s A \quad DE^2 = 34$$

$$DE = 4$$

$$BC = \sqrt{1^2 + 2^2 - 2 \times 1 \times 2 \times \sin 45^\circ} = \sqrt{2} \quad (7)$$

الس  
ب

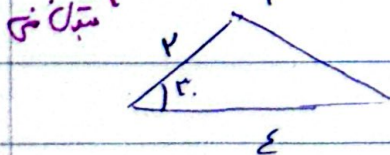
$$S_D = \frac{1}{2} \times 1 \times 2 \times \sin 45^\circ = \frac{1}{2} \sqrt{2}$$

$$\frac{(b+c)^2 - a^2}{bc(C \cdot s A + 1)} \xrightarrow{\text{نحوه}} \frac{b^2 + c^2 + 2bc - a^2}{a^2 + 2bc C \cdot s A} = \frac{2bc(C \cdot s A + 1)}{bc(C \cdot s A + 1)} = 2 \quad (8)$$

$$S_D = \frac{1}{2} \times \sin 45^\circ \times (r - C \cdot s \theta)(1 + r C \cdot s \theta) = 2 \quad (10) (9)$$

$$-r C \cdot s \theta + 1 C \cdot s \theta + r = 1 \quad + r C \cdot s \theta - 1 C \cdot s \theta + 1 = 2$$

$$C \cdot s \theta = \frac{1}{r} \quad C \cdot s \theta = 1 \quad \text{منه } r = 1$$



$$a^2 = 1 + 14 - 2 \times 1 \times 2 \times C \cdot s 45^\circ$$

$$a^2 = 10 - 1\sqrt{2}$$