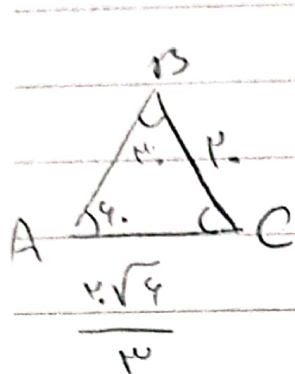


120 sin

120 sin



$$\hat{B} + \hat{C} = 180^\circ$$

$$\Rightarrow A = 90^\circ$$

$$\hat{C} = 90^\circ / \hat{B} = 90^\circ \quad (1)$$

$$\frac{BC}{\sin \hat{A}} = \frac{AC}{\sin \hat{B}} = \frac{AC}{\sin \hat{C}}$$

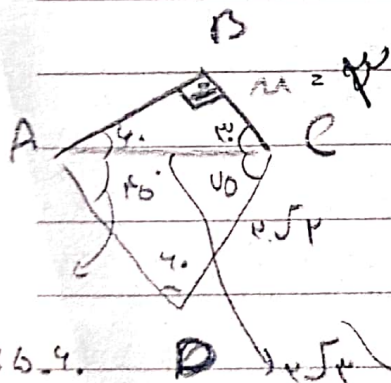
$$\frac{10}{\sqrt{2}} = \frac{10\sqrt{2}}{10} \Rightarrow \frac{10 \times 10}{\sqrt{2}} = \frac{10\sqrt{2}}{10 \sin B}$$

$$\Rightarrow C = 180^\circ - (90^\circ + 90^\circ) = 0^\circ$$

$$\Rightarrow \sin B = \frac{10\sqrt{2}}{10 \times 10} = \frac{\sqrt{2}}{10}$$

$$\sin B = \frac{1}{\sqrt{2}}$$

$$B = 45^\circ$$



$$\hat{A} = 180^\circ - (90^\circ + 45^\circ) = 45^\circ$$

$$\frac{10\sqrt{2}}{\sin 45^\circ} = \frac{AC}{\sin 45^\circ}$$

$$\frac{10\sqrt{2}}{\frac{1}{\sqrt{2}}} = \frac{AC}{\frac{1}{\sqrt{2}}}$$

$$\frac{10\sqrt{2}}{\frac{1}{\sqrt{2}}} = \frac{AC}{\frac{1}{\sqrt{2}}} \Rightarrow AC = 10\sqrt{2}$$

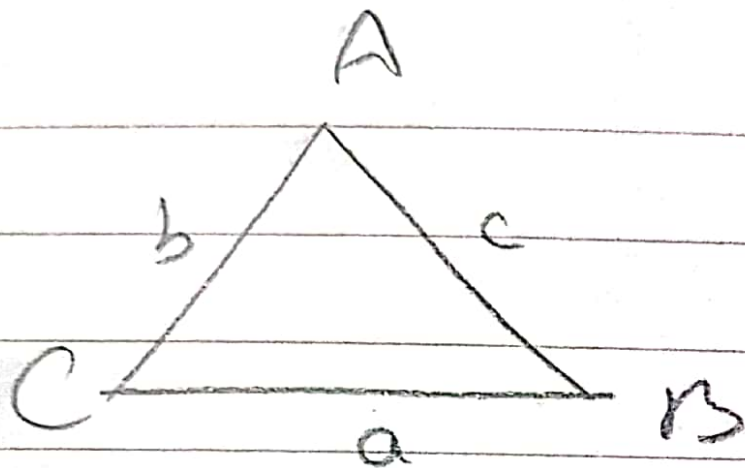
Original

$$\frac{10\sqrt{2}}{1} + 10\sqrt{2} = 10$$

$$\frac{10\sqrt{2}}{1} + 10\sqrt{2} = 10$$

$$u = 10$$

NEGARNOTE



$$(b^P - r) \frac{\sin C}{\sin B} = c \quad (1)$$

$b = ?$

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

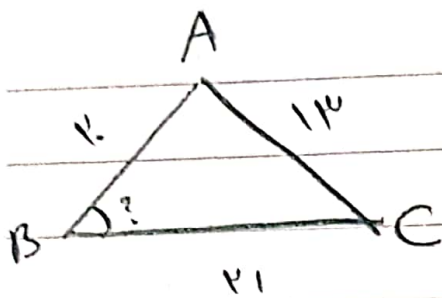
$$\Rightarrow b^P - r = b$$

$$b^P - b - r = 0$$

$$b = -1, \quad (P) \checkmark \Rightarrow b = P$$

A

← K → K



$$\sin \hat{B} \quad (K)$$

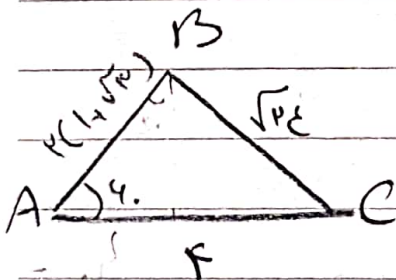
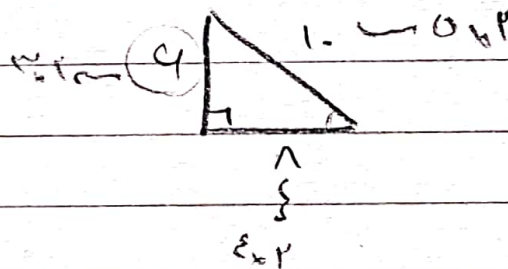
$$10^2 = 10^2 + 10^2 - 2(10)(10)(\cos B)$$

$$100 = 100 + 100 - 100 \cos B$$

$$100 \cos B = 100 + 100 - 100$$

$$100 \cos B = 100$$

$$\Rightarrow \cos B = \frac{100}{100} = 1 \rightarrow \sin = 0$$



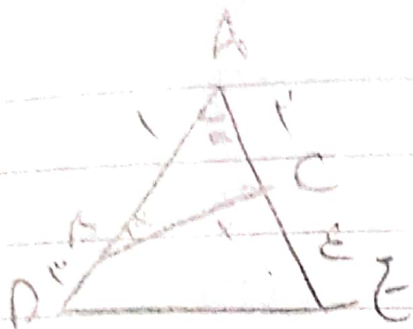
$$BC^2 = AB^2 + AC^2 - 2(AB)(AC)(\cos B)$$

$$(BC)^2 = 10^2 + 10^2 - 2(10)(10)(\cos B)$$

$$\left(\frac{1}{10}\right)$$

$$\Rightarrow BC^2 = 100 + 100 - 100 \cos B$$

$$\Rightarrow BC = 10$$



$\triangle ABC \rightarrow$ $DE = ?$ (4)

مسئله
استدلال

$$\Rightarrow \hat{B} = \hat{A}$$

$$- f \cos \alpha$$

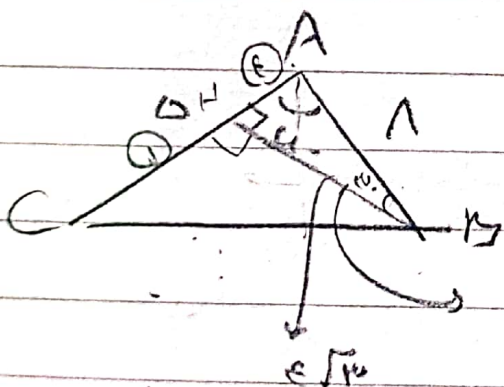
$$P = P + 1 - P(P)(1) \cos \alpha$$

$$-1 = -f \cos \alpha = \cos \alpha = \frac{1}{2}$$

$$(DE)^2 = E^2 + 4^2 - 2(E)(4)\left(\frac{1}{2}\right)$$

$$DE^2 = 14 + 16 - 12 = 8 \Rightarrow DE = 2\sqrt{2}$$

$2\sqrt{2} =$ $\frac{14+16}{2}$



$$1^2 + (2\sqrt{2})^2 = (EB)^2$$

$$1 + 8 = EB^2 \Rightarrow EB = \sqrt{9} = 3$$

(3)

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

ضلع های مثلث

$$\frac{\sqrt{2}}{2} \times 2$$

ضلع های مثلث

$$\frac{1}{2} \times 2$$

$$\triangle ABH$$

$$A = A$$

$$H = H$$

$$B = B$$

$$AB = AB$$

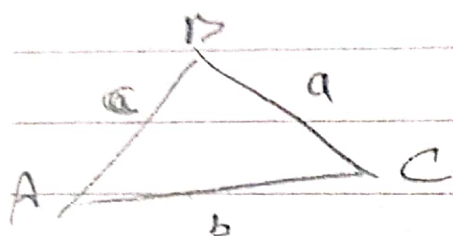
$$2\sqrt{2} = HB$$

$$\textcircled{6} = AH$$

NEGARNOTE

$$AC = AH + HC$$

$$\frac{\text{Area}}{r} \Rightarrow \frac{\frac{1}{2} \times \sqrt{3}}{r} = \frac{SABC}{r} \quad (1)$$



$$(b+c) \cdot a \quad (1)$$

$$bc (\cos \hat{A} + 1)$$

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

$$\Rightarrow \cos A = \frac{b^2 + c^2 - a^2}{2bc} \Rightarrow \frac{-a^2 + b^2 + c^2}{2bc}$$

$$b^2 + c^2 + 2bc - a^2$$

$$+ \frac{(-a^2 + b^2 + c^2 + 2bc)}{2bc}$$

$$bc \left(\frac{-a^2 + b^2 + c^2 + 2bc}{2bc} \right)$$

$$\left(\frac{b^2 + c^2 + 2bc - a^2}{2bc} \right) = \frac{cb}{1} = cb$$