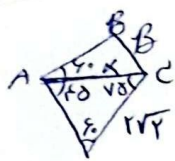


$$\frac{a}{\sin A} = \frac{b}{\sin B} \rightarrow \frac{r}{\sin 60} = \frac{r}{\sin B} \rightarrow \sin B = \frac{\sqrt{r}}{r} \quad B = 45 \quad C = 90$$

-1



$$\frac{r\sqrt{r}}{\sin 60} = \frac{\alpha}{\sin 45} \quad \frac{r\sqrt{r}}{\frac{1}{\sqrt{r}}} = \frac{\alpha}{\frac{1}{\sqrt{r}}} \quad \alpha = r\sqrt{r}$$

$$B = \alpha \sin 45 = \sqrt{\frac{r}{r}} \times r\sqrt{r} = r$$

-2

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = k$$

$$k \sin C = \frac{\sin C}{\sin B} \times (b^r - r) \quad k \sin B = b = b^r - r \rightarrow b^r - b - r = 0 \quad \text{--- } 1 \times$$

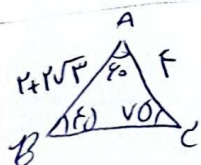
-3

$$13^r = r^r + r^r - r \times r \times 1 \times \cos B \quad \cos B = \frac{r\sqrt{r}}{1r} = \frac{r}{\delta}$$

$$\sin B = \frac{r}{\delta}$$



-4



$$a^r = 14 + r(1 + r + r\sqrt{r}) - r \times (r + r\sqrt{r}) \quad a^r = r^r \quad a = r\sqrt{r}$$

$$\frac{a}{\sin A} = \frac{b}{\sin B} \quad \frac{r}{\sin 60} = \frac{r\sqrt{r}}{\sin B} \rightarrow \sin B = \frac{\sqrt{r}}{r} \quad B = 45 \quad C = 90$$

-5

$$f = \delta - f \cos \alpha \rightarrow f \cos \alpha = 1 \quad \cos \alpha = \frac{1}{f}$$

$$ED^r = 14 + r^r - f \times 1 \times \frac{1}{f} \quad DE^r = f \quad DE = r\sqrt{r}$$

-6

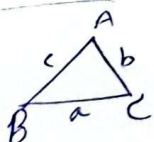
$$BC^r = r\delta + rf - 1 \times 1 \times \frac{1}{f} = f^r \quad BC = \sqrt{f}$$

(---)

-7

$$\frac{1}{f} \times \delta \times 1 \times \sqrt{\frac{r}{r}} = \frac{1 \cdot \sqrt{r}}{f}$$

(---)



$$\frac{(b+c)^r - a^r}{bc(\cos A + 1)} = \frac{b^r + rbc + c^r - b^r - c^r + rbc \cos A}{bc(\cos A + 1)} = \frac{rbc(\cos A + 1)}{bc(\cos A + 1)} = r$$

-8

$$\frac{a^2 + b^2 - c^2}{a + b - c} = a^2 \quad a^2 + b^2 - c^2 = a^2 + a^2 b - a^2 c \quad (b-c)(b^2 + c^2 + bc) = a^2(b-c) \quad -9$$

$$b^2 + c^2 + bc = b^2 + c^2 - 2bc \cos A \rightarrow bc = -2bc \cos A \quad \cos A = -\frac{1}{2}$$

-10

آر میں نوری