

(a+b)(a-b) = a^2 - b^2

$$\left(\frac{\sqrt{r}}{r} + \frac{\sqrt{r}}{r}\right) \left(\frac{\sqrt{r}}{r} - \frac{\sqrt{r}}{r}\right) = \left(\frac{\sqrt{r}}{r}\right)^2 - \left(\frac{\sqrt{r}}{r}\right)^2 = -\frac{1}{r}$$

A سہ فی اے

$$r \times \frac{1}{r} + 1 = 1, \quad r \times \frac{r}{r} + r \times \frac{1}{r} \rightarrow \frac{r}{r} = \frac{1}{r}$$

ب

$$\frac{\sqrt{r}}{r} \times \frac{\sqrt{r}}{r} \times \sqrt{r} = \frac{\sqrt{r}}{r} \times \sqrt{r} \quad (2\sqrt{r}) \times r \rightarrow HC = \frac{r}{r} + \frac{r}{r}$$

(1-2)

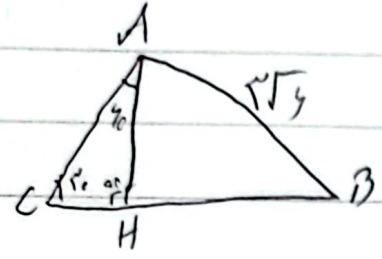
HC = 9 ⇒ HC = 5

$$AC \times \frac{\sqrt{r}}{r} = 9 \rightarrow AC = \frac{9}{\frac{\sqrt{r}}{r}} = \frac{9r}{\sqrt{r}} = 9\sqrt{r}$$

ب

$$dh = 9\sqrt{r} \times \frac{1}{r} = \sqrt{r} \quad r \times \sqrt{r} \times \sin B = \sqrt{r}$$

$$\frac{r\sqrt{r}}{r\sqrt{r}} = \frac{\sqrt{r} \times r}{r} = \frac{\sqrt{r}}{r} \rightarrow B = 45^\circ$$

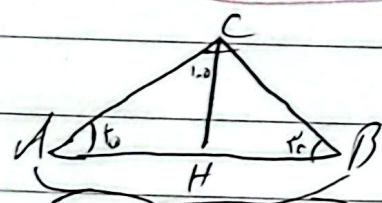


$$\frac{\sqrt{r}}{r} \times AD = 20\sqrt{r} \quad AD = 100 \quad BD = \frac{1}{r} \times 100$$

(1-3)

$$AC \Rightarrow AC \times \frac{1}{r} = 20\sqrt{r} \rightarrow AC = 100\sqrt{r} \quad BC = \frac{\sqrt{r}}{r} \times 100\sqrt{r} = 100$$

$$BC - BD = 100 - 100 = 100$$



$$CH = \sin 45^\circ \times CA$$

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

$$\frac{AC}{AB} = \frac{CA}{\frac{\sqrt{r} + \sqrt{r}}{r} \times CA} = \frac{r}{\sqrt{r} + \sqrt{r}}$$

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

$$\sin 45^\circ \times \sin B \times r \Rightarrow AEB \quad \sin 45^\circ \times \sin B \times r$$

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

$$1) \quad r \times \frac{r \times \sqrt{r}}{r} = r\sqrt{r}$$

$$2) \quad \frac{1}{r} \times r \times r \times \frac{\sqrt{r}}{r} = r\sqrt{r}$$

