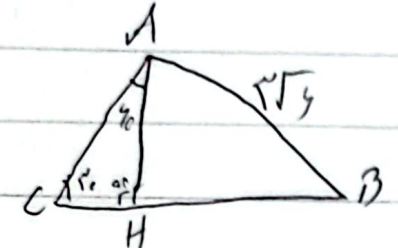


$(a+b)(a-b) = a^2 - b^2$  19, 18 A س 14) در بیان غلط

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

$2 \times \frac{1}{2} + 1 = 2$  و  $2 \times \frac{1}{2} + 2 \times \frac{1}{2} \rightarrow \frac{2}{2} = \frac{1}{2}$  ✓ 2) ب)

$\frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} \times \sqrt{4} = \frac{\sqrt{2}}{2} \times \sqrt{2}$   $(2\sqrt{2})^2 \rightarrow HC^2 + 2^2$  2- الف)



①  $HC^2 = 9 \Rightarrow HC = 3$  ✓ 2) ب)

$AC \times \frac{\sqrt{2}}{2} = 9 \rightarrow AC = \frac{9}{\frac{\sqrt{2}}{2}} = \frac{18}{\sqrt{2}} = 9\sqrt{2}$

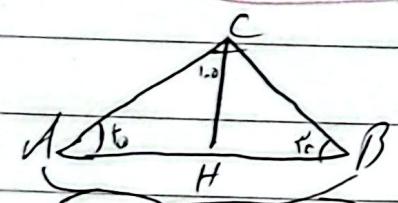
$dh = 9\sqrt{2} \times \frac{1}{2} = 4.5\sqrt{2}$   $2\sqrt{2} \times \sin B = 4.5\sqrt{2}$

$\frac{4.5\sqrt{2}}{4.5\sqrt{2}} = \frac{\sqrt{2} \times 2}{4} = \frac{\sqrt{2}}{2} \rightarrow B = 45^\circ$  درقت!

$\frac{\sqrt{2}}{2} \times AD = 20\sqrt{2}$   $AD = 100$   $BD = \frac{1}{2} \times 100$  3- الف) 1)

$AC \Rightarrow AC \times \frac{1}{2} = 20\sqrt{2} \rightarrow AC = 40\sqrt{2}$   $BC = \frac{\sqrt{2}}{2} \times 100\sqrt{2} = 100$

$BC - BD = 100 - 50 = 50$  ✓ ب. ا ؟



$CH = \sin 45^\circ \times CA$  سوال نسبت AB/AC رو بخواد 175) 1)

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

$\frac{\sqrt{2}}{2} CA + \frac{\sqrt{2}}{2} CA = \sqrt{2} \times CA$

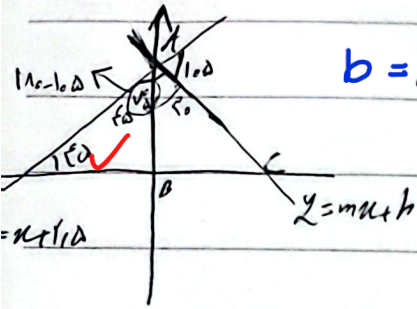
$50 \times 2 \times \sin B \times 2 \rightarrow AEB$   $S_p = \frac{1}{2} \times \sin B \times 2^2$

$\frac{S_1}{S_2} = \frac{f \sin B}{9 \sin B} = \frac{f}{9}$  ✓

ج)  $2 \times \frac{1}{2} \times \frac{1}{2} \times \frac{\sqrt{2}}{2} = \frac{1}{2} \sqrt{2}$  ✓ 2)

ب)  $\frac{1}{2} \times 2 \times 2 \times \frac{\sqrt{2}}{2} = 2\sqrt{2}$  ✓

$$r' + f' = r_0 \quad pq = \sqrt{r} \quad \left. \vphantom{pq = \sqrt{r}} \right\} \rightarrow \cos \theta = \frac{f \cdot \sqrt{r_0}}{\sqrt{r_0} \sqrt{r_0}} = \frac{f \cdot \sqrt{r_0}}{r_0} = \frac{f \sqrt{a}}{r_0} = \frac{r \sqrt{a}}{\delta} \quad \checkmark \quad (2) \quad \checkmark$$



$$b = AB = r_0 \delta \quad AC \times \frac{\sqrt{r}}{r} = \frac{d}{r}$$

$$CB = \frac{d}{\frac{r}{r}} = \frac{d}{r}$$

(1)  $\Delta$   
: m

$$\cos(\pi - \frac{2\pi}{4}) + \sin(\frac{\pi}{4} - \frac{2\pi}{4}) - \tan(\frac{\pi}{4} + \frac{2\pi}{4})$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$-\cos \frac{2\pi}{4} + \cos \frac{2\pi}{4} + \cot \frac{2\pi}{4} = \frac{\sqrt{r}}{r} - \frac{\sqrt{r}}{r} + \frac{\sqrt{r}}{r} \rightarrow \sqrt{r} - \sqrt{r}$$

$$= \cot \frac{2\pi}{4} = \boxed{-\sqrt{3}}$$

(1,5) 9

دقت!

$$\frac{+\cot \alpha - \sin \alpha}{-\cos \alpha + \sin \alpha} = \boxed{-1}$$

(1,5) -10

$$\hat{c} = 1r_0 - (f_0 + v_0) = 4_0 \rightarrow m = \tan 15^\circ = -\sqrt{3} \quad \Delta$$

$$\rightarrow mb = -\frac{\delta}{r} \sqrt{3}$$

$$\tan 4_0 = \frac{BC}{r} \rightarrow BC = r \sqrt{3} \quad DC = \sqrt{13} \quad \Delta$$

$$\sin \alpha = \frac{BD}{DC} = \boxed{\frac{1}{\sqrt{13}}}$$