

۲۰ عالم نوستر

$$\frac{m-k}{\epsilon-k} = \frac{m-k}{\frac{1}{1-\epsilon}} \rightarrow m-k = \frac{1}{1-\epsilon} \rightarrow m = k + \frac{1}{1-\epsilon}$$

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$$\sqrt{(\epsilon-k)^2 + (m-k)^2} = \sqrt{(\epsilon-k)^2 + \left(\frac{1}{1-\epsilon}\right)^2} = \sqrt{\epsilon\delta} \rightarrow \epsilon\delta = \dots$$

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$$\begin{cases} x + z = y + w \\ y + w = x + z \end{cases} \rightarrow x - 1 = y - 1 - x \rightarrow x = y \rightarrow x = 1, \delta$$

$$\frac{\epsilon-1}{-1-\epsilon} \times \frac{y-1}{x-\epsilon} = -1 \rightarrow y = -1$$

$$AB = \sqrt{\epsilon^2 + \delta^2} = \delta$$

$$BC = \sqrt{(1, \delta)^2 + \epsilon^2} = 1, \delta$$

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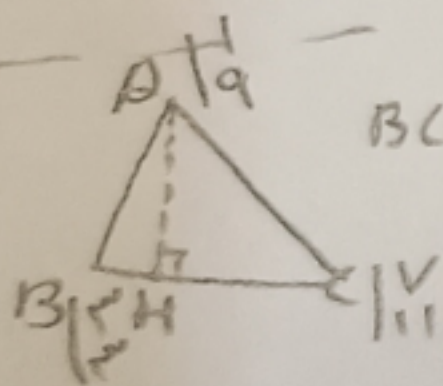
شیفا

$m = \tan \alpha = \sqrt{\frac{1}{2}}$

$$(m^2-1)y = -2mn + 2 \rightarrow m = \frac{-2m}{m^2-1} = \sqrt{2} \rightarrow \sqrt{2}m^2 - \sqrt{2} = -2m$$

$$\sqrt{2}m^2 + 2m - \sqrt{2} = 0 \rightarrow \Delta = 4 + 8 = 12 \rightarrow \sqrt{\frac{12}{2}} = \frac{2}{\sqrt{2}} = \sqrt{2}$$

$$\rightarrow y = \frac{-2}{\sqrt{2}} \rightarrow y = -\sqrt{2} = -1$$



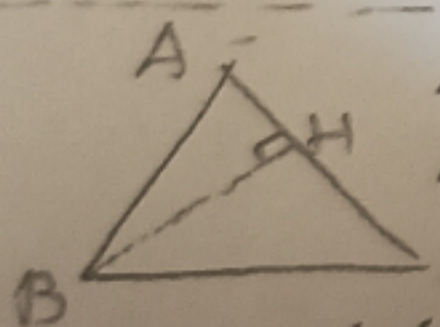
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$$BC \text{ سب } = \frac{11-\epsilon}{V-\epsilon} = \frac{1}{\epsilon} \geq 1 \rightarrow y - \epsilon = 1(n - \epsilon)$$

$$y = 1n - \epsilon \rightarrow 1n - y - \epsilon \geq 0$$

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$$AH = \frac{|1-9-\epsilon|}{\sqrt{1+1}} = \frac{|-10|}{\sqrt{2}} = \frac{10}{\sqrt{2}} = 5\sqrt{2}$$



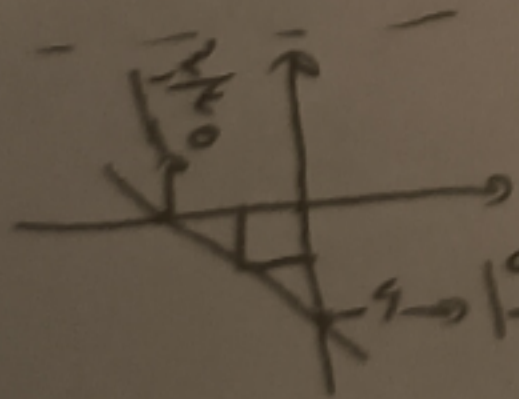
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$$\begin{cases} A: \epsilon y - 2n = 17 \rightarrow \epsilon y = 2n + 17 \\ AB: y + 2n = V \rightarrow \epsilon y = -1n + 21 \\ BC: \epsilon y - 17n = -19 \rightarrow \epsilon y = 17n - 19 \end{cases}$$

$$\begin{cases} 2n + 17 = -1n + 21 \rightarrow 3n = 4 \rightarrow n = \frac{4}{3} \\ 2n + 17 = 17n - 19 \rightarrow 15n = 36 \rightarrow n = \frac{12}{5} \end{cases}$$

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$$BH = \frac{|1-9-17|}{\sqrt{2}} = \frac{25}{\sqrt{2}}$$



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$$\frac{0-(1)}{-\frac{1}{2}} = \frac{4x-\frac{1}{2}}{1-\frac{1}{2}} = -1 \rightarrow y - (1) = -1(n)$$

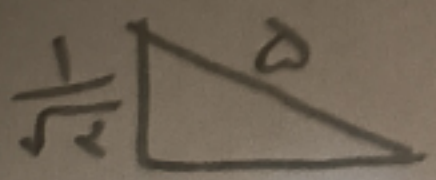
$$y = -1n - 1$$

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$$n = -1n - 1 \rightarrow 2n = -1 \rightarrow n = -\frac{1}{2} \rightarrow \frac{\sqrt{2}}{2}$$

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$$\frac{a}{1} = \frac{1}{a} \rightarrow a = \pm 1 \rightarrow y = n, y = n+1 \rightarrow \frac{11-0}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$



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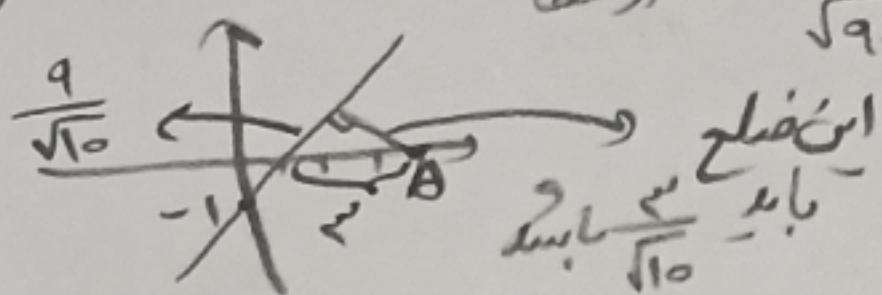
$$a = \frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{2} = \frac{1}{2}$$

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$$n = \frac{1}{2} \rightarrow n = \frac{\sqrt{2}}{2}$$

$y = \frac{\pi}{2} - 1 \rightarrow y = \pi - 2$
 حاصله از خط $\frac{10-4}{\sqrt{9+1}} = \frac{6}{\sqrt{10}}$

۸- (۲)

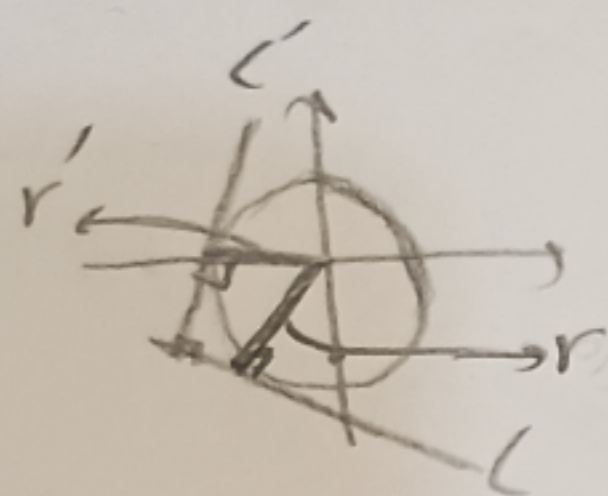


مساحت $= \frac{1}{2} \times \frac{9}{\sqrt{10}} \times \frac{6}{\sqrt{10}} = \frac{27}{10} = 2.7$ ✓

$\left| \frac{-1}{a} \right| \left| \frac{-1}{b} \right| \rightarrow \text{نسبت} = \frac{b-a}{-\frac{1}{a} - (-\frac{1}{b})} = \frac{b-a}{\frac{1}{b} - \frac{1}{a}} = (b-a) \sqrt{2} \rightarrow b-a = \frac{\sqrt{2}}{2}$

۹- (۲)

طول ضلع $= \sqrt{(-\frac{1}{2})^2 + (-\frac{1}{2})^2 + (b-a)^2} = \sqrt{\frac{1}{2} + \frac{1}{2} + \frac{2}{2}} = \sqrt{2} \rightarrow \boxed{\frac{\sqrt{2}}{2}} \text{ طول ضلع} \checkmark$



$y = -\frac{x}{2} + \frac{1}{2} \Rightarrow y + \frac{x}{2} - \frac{1}{2} = 0$
 $\text{نسبت} = \frac{1}{\sqrt{1+1}} = \frac{1}{\sqrt{2}}$

۱۰- (۲)

$y = -\frac{x}{2} + \frac{1}{2} \rightarrow x + 2y = 1 \rightarrow x = 1 - 2y$

$y = \frac{1}{2} (x+1) \rightarrow y = \frac{x}{2} + \frac{1}{2}$
 $y = -\frac{x}{2} + \frac{1}{2}$
 $\frac{x+1}{2} = \frac{x}{2} + \frac{1}{2} \rightarrow x+1 = x+1 \rightarrow x = -1$ ✓