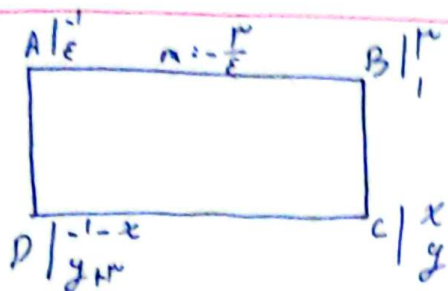


$$\textcircled{1} m = -\frac{1}{r} = \frac{m \cdot k}{\varepsilon \cdot (-r)} \rightarrow m \cdot k = r$$

$$\textcircled{2} B: A \text{ دلو } \sqrt{(m-k)^2 + (\varepsilon \cdot (-r))^2} \cdot \sqrt{9+16} = \sqrt{\varepsilon \omega} = 3\sqrt{\omega} \rightarrow 5 \cdot (3\sqrt{\omega})^2 = \varepsilon \omega$$



$$\textcircled{3} \text{ Co } x : x-1 = r-x \rightarrow rx = r \rightarrow x = \frac{r}{r}$$

$$\textcircled{4} \text{ Co } y : y+\varepsilon = y+\varepsilon$$

$$\textcircled{5} m_{BC} = \frac{\varepsilon}{r} = \frac{y-1}{-\frac{r}{\varepsilon}} \rightarrow y-1 = -r \rightarrow y = -1$$

$$AB = \sqrt{14+9} = \omega \rightarrow BC = \sqrt{\frac{9}{\varepsilon} + \varepsilon} = \frac{\omega}{r}$$

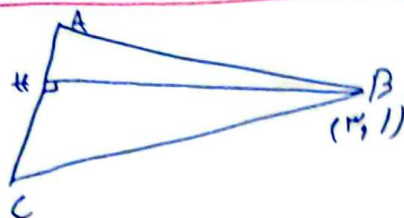
$$\underline{\omega} = r(\omega + \frac{\omega}{r}) = 1\omega$$

$$\textcircled{6} m = \tan \theta = \sqrt{r} = \frac{-rm}{m^2-1} \rightarrow \sqrt{r} m^2 - \sqrt{r} = -rm \rightarrow \sqrt{r} m^2 + rm - \sqrt{r} = 0$$

$$\textcircled{7} \Delta : \varepsilon - \varepsilon \times \sqrt{r} \times (-\sqrt{r}) = \varepsilon + 14 = 14 \rightarrow m = \frac{-r \pm \varepsilon}{r\sqrt{r}} \begin{cases} \frac{1}{\sqrt{r}} \\ -\frac{r}{\sqrt{r}} \end{cases} \xrightarrow{\text{اختار}} \frac{\varepsilon}{\sqrt{r}}$$

$$\textcircled{8} m = \frac{11-r}{v-r} = r \rightarrow y-r = r(x-r) = rx - r \rightarrow y = rx - r$$

$$\textcircled{9} AH = \frac{|14-9-r|}{\sqrt{\varepsilon+1}} = \frac{1}{\sqrt{\omega}} = r\sqrt{\omega}$$



$$BH = AC \text{ دلو } = \frac{|\varepsilon-9-14|}{\sqrt{9+16}} = \varepsilon, \varepsilon$$

$$y_{AB} = y_{BC}$$

$$\rightarrow -rx + v = \frac{vx-14}{r} \rightarrow x = r$$

$$\textcircled{10} m = \frac{-9-0}{0+\frac{r}{\varepsilon}} = -1 \rightarrow y = -1(x+\frac{r}{\varepsilon}) \rightarrow y = -1x - \frac{r}{\varepsilon}$$

$$-1x - \frac{r}{\varepsilon} = x \rightarrow 4x = -\frac{r}{\varepsilon} \rightarrow x = -\frac{r}{4\varepsilon} \rightarrow y = -\frac{r}{4\varepsilon}$$

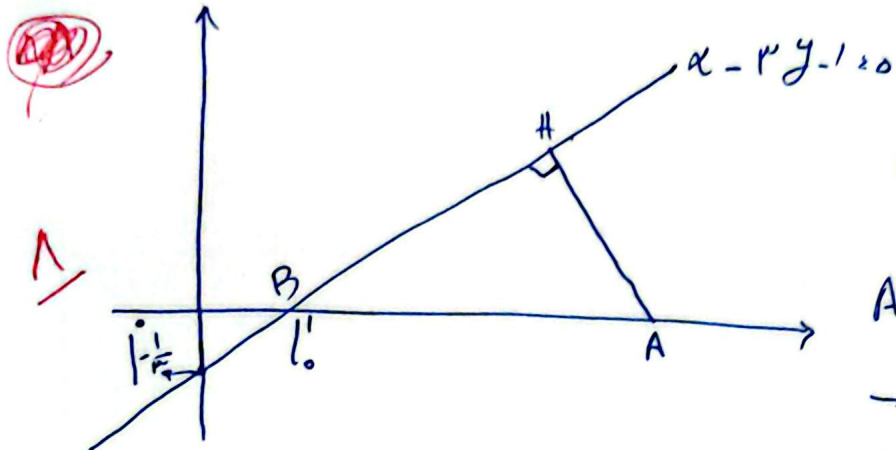
$$d = \sqrt{\frac{\varepsilon}{9} + \frac{\varepsilon}{9}} = \frac{r}{\varepsilon} \sqrt{r}$$



$$\textcircled{11} \text{ مبالغه } \rightarrow a = \frac{1}{a} \rightarrow a^2 = 1 \rightarrow a = \pm 1$$

$$\textcircled{12} r = \frac{|14-1|}{\sqrt{1+1}} = \frac{1}{\sqrt{r}} \text{ / } s^2 = r\omega = \frac{1}{r} = \frac{\varepsilon 9}{r}$$

$$\textcircled{13} \text{ دلو } \omega \text{ دلو } r = \frac{1}{\sqrt{r}} \rightarrow \omega = \frac{v}{\sqrt{r}} \times \frac{1}{\sqrt{r}} = \frac{v}{r} = r\omega$$

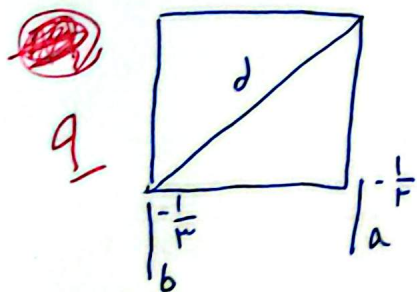


$$AH = \frac{|(-1) - 0 - 1|}{\sqrt{1+9}} = \frac{2}{\sqrt{10}}$$

$$AB^2 = AH^2 + BH^2 \Rightarrow 9 = \left(\frac{2}{\sqrt{10}}\right)^2 + BH^2$$

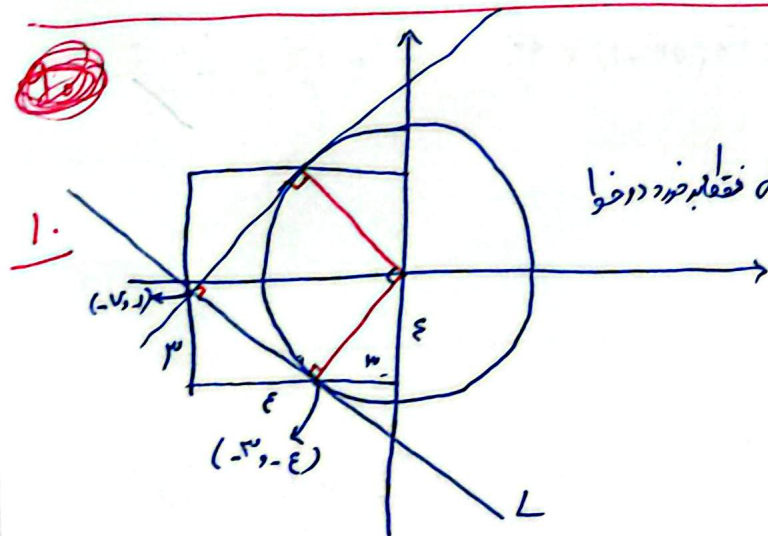
$$\Rightarrow BH = \frac{9}{\sqrt{10}}$$

$$S_{AHB} = \frac{1}{2} \times \frac{2}{\sqrt{10}} \times \frac{9}{\sqrt{10}} = \frac{9}{10} = 0.9$$



$$\frac{b-a}{-\frac{1}{4} + \frac{1}{4}} = \sqrt{2} \rightarrow b-a = \frac{\sqrt{2}}{4}$$

$$d = \sqrt{2} \times \sqrt{\left(\frac{b-a}{\sqrt{2}}\right)^2 + \frac{1}{4}} = \sqrt{2} \times \frac{1}{2} = \frac{\sqrt{2}}{2}$$



$$(-1) \times (-1) = 1$$