

$$\frac{m-k}{r-(-r)} = -\frac{1}{r} \quad m-k = -r$$

المسألة الأولى: (20)

$$|AB| = \sqrt{(r-(-r))^2 + (m-k)^2} = \sqrt{r^2 + 9} = \sqrt{16} = 4 \rightarrow \text{سم } ABCD = 4r = 16$$

$$A + (z \beta + D) \quad \begin{vmatrix} 1 \\ r \end{vmatrix} + \begin{vmatrix} -1 \\ y+r \end{vmatrix} = \begin{vmatrix} 1 \\ r \end{vmatrix} + \begin{vmatrix} -1-m \\ y+r \end{vmatrix}$$

$$n-1 = r-m \quad n = \frac{r}{r}$$

$$|AB| = \sqrt{(r-(-1))^2 + (1-r)^2} = 2$$

$$m_{AB} = \frac{-1}{r-BC} \quad m_{AB} = \frac{r}{r} \quad m_{BC} = \frac{r}{r} = \frac{1-y}{r-m} = \frac{1-y}{\frac{r}{r}} = \frac{1-y}{r}$$

$$C \begin{vmatrix} r \\ -1 \end{vmatrix}$$

$$BC = \sqrt{(r-\frac{r}{r})^2 + (1-(-1))^2} = \sqrt{\frac{9}{r^2} + 4} = \frac{9}{r}$$

$$C \begin{vmatrix} r \\ y \end{vmatrix} \quad D \begin{vmatrix} -\frac{9}{r} \\ y+r \end{vmatrix} \quad y=2 \quad y=1$$

$$P: 1 + 2 = 3$$

$$y = \frac{-r_m}{m-1} + r \rightarrow \tan \theta = \sqrt{r} = \frac{-r_m}{m-1}$$

$$r_m^2 + r_m - \sqrt{r} = 0$$

$$\text{افتتاحية} = \frac{\sqrt{A}}{|a|} = \frac{\sqrt{4+12}}{\sqrt{13}} = \frac{4}{\sqrt{13}}$$

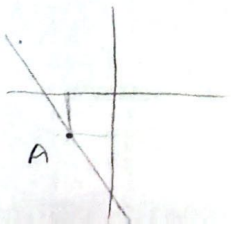
$$BC: m_{BC} = \frac{11-r}{r-r} = 2 \rightarrow y = r-m-r$$

$$BC: \text{المساحة} = |AH| = \frac{|9-2+r|}{\sqrt{1+r}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\left. \begin{array}{l} y+r = v \rightarrow y+r = 14 \\ y-v = -19 \end{array} \right\} \rightarrow \begin{vmatrix} 1 & 1 \\ 1 & -1 \end{vmatrix} \begin{vmatrix} 14 \\ -19 \end{vmatrix} = \begin{vmatrix} 1 & 1 \\ 1 & -1 \end{vmatrix} \begin{vmatrix} 14 \\ -19 \end{vmatrix}$$

$$|BH| = AC: \text{المساحة} = \frac{|r-9-14|}{2} = \frac{22}{2} = 11$$

$$\frac{x}{-\frac{r}{r}} + \frac{y}{-\frac{r}{r}} = 1 \quad \frac{-r_m}{r} - \frac{y}{r} = 1 \quad \frac{r_m}{r} + \frac{y}{r} = 1 \quad \frac{r_m}{r} + \frac{y}{r} = 1 \quad \frac{r_m}{r} + \frac{y}{r} = 1$$



$$S_{\text{مربع}} = (\text{نقطة})^2 = \frac{(\text{نقطة})^2}{r} = \frac{r}{9} \quad \text{نقطة} = \frac{1}{9} \quad \text{نقطة} = \frac{1}{9}$$

در ضلع متساوی
مساوی اند $\Rightarrow \frac{a}{1} = \frac{1}{1-a} \neq \frac{1}{1} \quad a^2 = 1 \quad a = \pm 1$

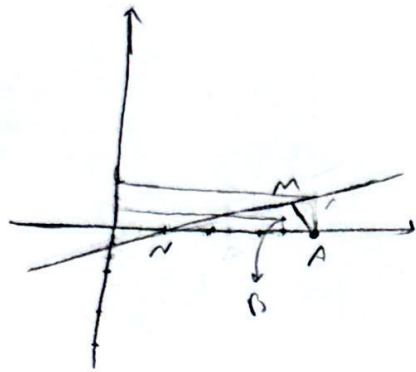
$$\begin{cases} y-x=0 & , y-x=1 \\ y-x=-1 & , y+x=1 \end{cases}$$

نقشه ۱: در این حالت مساحت یک ربع است $a=1$

طول ضلع = $\frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$

$\frac{1}{2} + a^2 = 2a \quad a^2 - 2a + \frac{1}{2} = 0 \quad a = \frac{2 \pm \sqrt{4-2}}{2} = \frac{2 \pm \sqrt{2}}{2} = 1 \pm \frac{\sqrt{2}}{2}$

$S = \frac{\sqrt{2}}{\sqrt{2}} \times \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{2}$



$\frac{1}{2} + \frac{1}{2} = 1$
 $B \mid \frac{\sqrt{2}}{2}$

$AM = \frac{1}{\sqrt{2}}$

$mn^2 = AM^2 - AN^2 = 1 - \frac{1}{2} = \frac{1}{2}$
 $mn = \frac{1}{\sqrt{2}}$

$S = \frac{AM \times mn}{2} = \frac{1}{2} \times \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{4}$

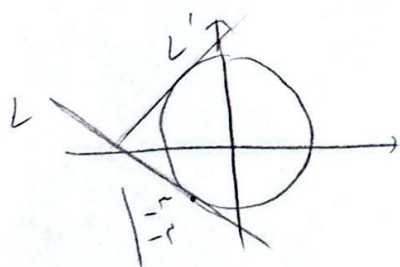
$m = \frac{a-b}{-\frac{1}{a} + \frac{1}{b}} = \sqrt{a}$

$a-b = -\frac{\sqrt{a}}{4}$

ضلع = $\sqrt{(a-b)^2 + \left(-\frac{1}{a} + \frac{1}{b}\right)^2} = \dots$

$\sqrt{\frac{1}{16} + \frac{1}{16}} = \frac{1}{4} = \frac{1}{4}$

ضلع = $\sqrt{\left(\frac{1}{4}\right)^2 + \left(\frac{1}{4}\right)^2} = \frac{\sqrt{2}}{4}$



$L: y = mx + b$

$\frac{b}{\sqrt{1+m^2}} = r$

$-r^2 = -r^2 m^2 + b^2$
 $b^2 = r^2 m^2 - r^2$

$a\sqrt{1+m^2} = r^2 m^2 - r^2$

$2am + 2a^2 m^2 = 9a^2 + 17 - 2a$

$14a^2 + 21a + 9 = 0$

$(2a+3)^2 = 0$

$a = -\frac{3}{2}$

$b = -\frac{17}{2}$

$L: y = -\frac{3}{2}x - \frac{17}{2}$

$y = -\frac{3}{2}x - \frac{17}{2}$

$y = \frac{3}{2}x + \frac{17}{2}$

$\Rightarrow \begin{cases} -9x - 17 = 17x + 17 \\ 26x = -34 \\ x = -\frac{17}{13} \end{cases} \Rightarrow y = \frac{17}{13}$