

نموده بار دهم (خند)

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با/ با/ جانوازی/ بار/ مشهال/ کلف

$$A(-r, k) \cdot B(r, m) \quad \alpha = -\frac{1}{r}$$

$$2. \frac{\Delta y}{\Delta x} = \frac{m-k}{r+k} = -\frac{1}{r} \Rightarrow m-k-r = 0$$

$$AB = \sqrt{(r+r)^2 + (m-k)^2} = \sqrt{4r^2 + 9} \quad \text{مساحت} = AB^2 = 4r^2 + 9$$

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$$A(-1, 2) \cdot B(3, 1) \cdot C(x, y) \cdot D(-1-x, y+2)$$

$$m_{CB} = \frac{y-1}{x-3} = \frac{y-1}{-x-4} = \frac{y-1}{-x-4} \rightarrow \frac{y-1}{-x-4} = \frac{y-1}{-x-4} \rightarrow y = -1$$

$$CD \parallel BA \Rightarrow \alpha_{BA} = \frac{1-2}{3+1} = -\frac{1}{4} = \frac{y+2}{-1-x-2} = \frac{y+2}{-x-3} \Rightarrow x = \frac{y+2}{-1-x-2} \Rightarrow x = \frac{y+2}{-x-3}$$

$$|AB| = 5 \quad r(2+\frac{5}{r}) = 10$$

$$CD = \sqrt{(\frac{r}{4} + \frac{5}{4})^2 + (y+2)^2} = \sqrt{\frac{r^2}{16} + 9} = \sqrt{25} = 5$$

$$r(2+\frac{5}{r}) = 10$$

$$AC = \sqrt{(-1-\frac{r}{4})^2 + (2-y)^2} = BD = \sqrt{(3+\frac{r}{4})^2 + (1-y-2)^2} \quad AC = \frac{10}{5}$$

$$\frac{r^2}{16} + \frac{10}{4} + 16 - 4y = \frac{10}{5} + 9 + y^2 + 4y \rightarrow \frac{r^2}{16} - \frac{10}{4} + 16 = 12y \rightarrow y = -1$$

$$rmx + (m^2 - 1)y = r$$

$$\text{مختلاف درجه} = \frac{\sqrt{r}}{r} + \sqrt{r} = \frac{\sqrt{r} + r\sqrt{r}}{r} = \frac{r\sqrt{r}}{r} = \sqrt{r}$$

$$\alpha = \tan 90 = \frac{\sqrt{r}}{r} \Rightarrow \frac{-rm}{m^2 - 1} = \frac{\sqrt{r}}{r} \Rightarrow rm^2 - r = -r\sqrt{r}m$$

$$\rightarrow rm^2 + r\sqrt{r}m - r = 0$$

$$\Delta = 12 - 4(3)(-2) = 12 + 24 = 36$$

$$\frac{-r\sqrt{r} \pm \sqrt{r^2}}{r} = \frac{r\sqrt{r}}{r} = \frac{\sqrt{r}}{r}$$

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

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$$AC = \sqrt{(-1-\frac{r}{4})^2 + (2-y)^2} = \frac{10}{5} = 2\sqrt{5}$$

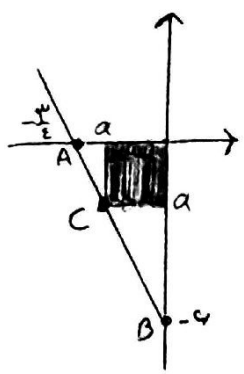
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$$AB = y = -rx + 1 \quad BC = y = \frac{rx-1}{r} \rightarrow -rx + 1 = \frac{rx-1}{r} \rightarrow x = 3, y = 1 \quad B$$

$$\frac{|19 + 8 - 17|}{\sqrt{14+9}} = \frac{10}{5} \Rightarrow B \cup C$$

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$$A = \begin{bmatrix} -1 \\ 0 \end{bmatrix} \quad B = \begin{bmatrix} 0 \\ -1 \end{bmatrix} \quad \left\{ \begin{array}{l} a = \frac{0 + 1}{-1 - 0} = -1 \\ -\frac{1}{-1} = 1 \end{array} \right. \quad y_1 y = -1(x-0) \rightarrow y = -x - 1$$

$$C = \begin{bmatrix} -a \\ -a \end{bmatrix} \rightarrow -a = +1a - 1 \rightarrow -2a = -1 \rightarrow a = \frac{1}{2}$$

مساحت مربع = $\frac{\sqrt{2}}{2} a = \frac{\sqrt{2}}{2} \times \frac{1}{2} = \frac{\sqrt{2}}{4}$

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$$ay - x = a - 1 \rightarrow y - x = 0 \rightarrow y = x$$

$$y - ax = 1 \rightarrow y - x = 1 \rightarrow y = x + 1$$

$$x - a = 1 \rightarrow -a = 1$$

$$S = \frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \frac{1}{2} = 0.5$$

$$\frac{1}{\sqrt{2}} = \frac{|2-1|}{\sqrt{2}} = \frac{1}{\sqrt{2}} \rightarrow \text{مساحت} = BC$$

$$BD = BC + CD \Rightarrow \omega = \frac{1}{2} + CD \rightarrow \sqrt{2} = \frac{1}{2} + CD \Rightarrow CD = \frac{3}{2}$$

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

(*) در مثل قائم الزاویه، ارتفاع منتهی بر وتر است

$$1) \sin \theta = \frac{|1+1|}{\sqrt{1^2+(-1)^2}} = \frac{2}{\sqrt{2}} = \sqrt{2}$$

$$\Rightarrow \cos \theta = \frac{1}{\sqrt{2}}$$

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

$$AB^2 = AH^2 + BH^2 \rightarrow 2 = \left(\frac{1}{\sqrt{2}}\right)^2 + BH^2 \rightarrow BH = \frac{3}{2}$$

$$S = \frac{1}{2} \times \frac{3}{2} \times \frac{1}{2} = \frac{3}{8}$$

$$A(-\frac{1}{2}, a) \quad B(-\frac{1}{2}, b) \quad AB \text{ طول} = \sqrt{(-\frac{1}{2} + \frac{1}{2})^2 + (b-a)^2} = \sqrt{0 + (b-a)^2} = |b-a|$$

$$a = \sqrt{2}$$

$$a_n = \frac{\Delta y}{\Delta x} = \frac{b-a}{-\frac{1}{2} + \frac{1}{2}} = \sqrt{2} \rightarrow b-a = \frac{\sqrt{2}}{2}$$

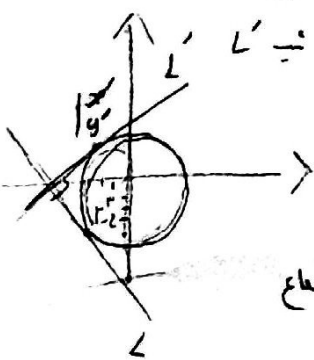
$$\text{مساحت مربع} = \sqrt{2} a = \sqrt{2} \times \frac{1}{2} = \frac{\sqrt{2}}{2}$$

(-3, 2)

$$\text{شیب شعاع} = a = \frac{0+2}{0+3} = \frac{2}{3}$$

$$\text{شیب} = -\frac{3}{2}$$

$$L: y + 2 = -\frac{3}{2}(x+3) \rightarrow 2y = -3x - 13$$



$$L': y - 2 = \frac{2}{3}(x + 3) \rightarrow 3y = 2x + 12$$

$$\omega = \sqrt{16 + 9} = 5$$

$$\begin{cases} L: 3y + 2x + 13 = 0 \\ L': 2y - 3x - 12 = 0 \end{cases} \rightarrow \begin{bmatrix} 3 \\ 2 \end{bmatrix} \cdot \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -13 \\ -12 \end{bmatrix} \Rightarrow xy = 1$$