

(۱)

$$\left. \begin{aligned} A(-1, K) \quad y - K &= \frac{-1}{r} (x + 1) \quad y = \frac{-1}{r} x + K - 1 \\ B(\varepsilon, m) \quad y - m &= \frac{-1}{r} (x - \varepsilon) \quad y = \frac{-1}{r} x + m + 1 \end{aligned} \right\} \begin{aligned} K - 1 &= m + 1 \\ K - m &= 2 \end{aligned}$$

$$AB = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{r^2 \omega} = r \sqrt{\omega} \leq \frac{r \omega}{2}$$

$-1 - \varepsilon \leq -1 \quad K - m \leq 2$

(۲)

$$x_A + x_C \leq x_B + x_D \quad -1 + x \leq r - 1 - x \quad 2x \leq r$$

$$ABCD \rightarrow \text{مساحت } ABC \quad m \times m' \leq 1 \quad x \leq \frac{r}{2}$$

$$m_{BC} \leq \frac{\varepsilon}{r} \leq \frac{y-1}{\frac{r}{2} - r} \rightarrow y-1 \leq \frac{\varepsilon}{r} \times \frac{r}{r-2} \leq -1 \rightarrow y \leq -1$$

$$\frac{-r}{2} \quad AB \leq \sqrt{r^2 + \varepsilon^2} \leq \omega \quad BC \leq \sqrt{r^2 + \left(\frac{r}{2}\right)^2} \leq \frac{\omega}{2}$$

$$d \leq r(AB + BC) \leq r\left(2 + \frac{\omega}{2}\right) \leq \frac{10\omega}{5}$$

$$\tan \theta \leq \sqrt{r} \quad rmx + (m^2 - 1)y \leq r \quad (m^2 - 1)y \leq r - rmx \quad (۳)$$

$$y \leq \frac{-rm}{m^2 - 1} x + \frac{r}{m^2 - 1} \quad \frac{-rm}{m^2 - 1} \leq \sqrt{r} \rightarrow -rm \leq \sqrt{r}(m^2 - 1)$$

$$\angle B \leq \frac{\sqrt{r + \varepsilon\sqrt{r}} \times \sqrt{r}}{\sqrt{r}} \leq \frac{\varepsilon}{\sqrt{r}} \leq \frac{\varepsilon\sqrt{r}}{r}$$

$$m_{BC} \leq \frac{1-r}{r-2} \leq \frac{1}{\varepsilon} \quad y = \frac{r}{2} (x - r) \quad y = \frac{r}{2} x - \frac{r^2}{2} \quad BC \leq \frac{r}{2} y - \frac{r^2}{2} \leq 0 \quad (۴)$$

$$d = \frac{|ax_A + by_A + c|}{\sqrt{a^2 + b^2}} = \frac{|r - 9 - r|}{\sqrt{\varepsilon + 1}} \leq \frac{10}{\sqrt{\varepsilon}} \leq \frac{r\sqrt{\omega}}{2}$$

$$AB \leq y + x \leq v$$

$$x \leq \frac{-19-12}{-v-2} \leq -1$$

(a)

$$BC \leq 19 - v \leq -19$$

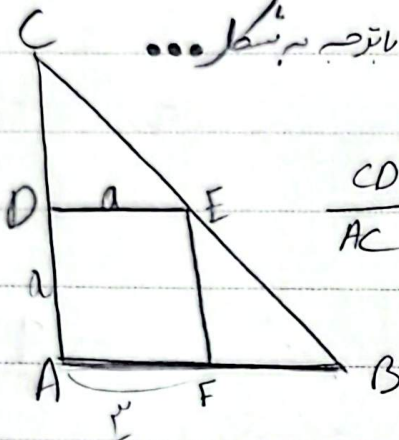
$$y \leq \frac{-19+29}{-v-2} \leq -1$$

$$B \text{ خط } AC \text{ اى } \frac{|19y - vx - 19|}{\sqrt{v^2 + 2}} \leq \frac{|1-2+9-19|}{2} \leq \frac{1}{2}$$

... با توجه به شکل



(b)



ADEF AB || DE $\rightarrow$ متوازی

$$\frac{CD}{AC} = \frac{DE}{AB} \rightarrow \frac{v-a}{v} = \frac{a}{19} \rightarrow \frac{v-a}{v} = \frac{a}{19} \rightarrow 19-v \leq 19a \leq 19$$

$$19v \leq 19 \rightarrow a \leq \frac{1}{19} \text{ (مقدار) } \leq \frac{19}{19} \leq \frac{1}{19}$$

$$\begin{cases} ay - x = a - 1 \rightarrow y = \frac{x}{a} + \frac{a-1}{a} \\ y - ax = 1 \rightarrow y = ax + 1 \end{cases} \text{ با توجه } a' \leq 1 \text{ و } a \geq 1 \quad (v)$$

$$\rightarrow a \leq 1 \quad y = x \quad y = x + 1 \quad a \geq 1 \quad y = -x + 1$$

$$a \leq 1 \quad y \leq \frac{|c-c'|}{\sqrt{a^2 + b^2}} \leq \frac{1}{\sqrt{2}} \leq \frac{\sqrt{2}}{2} \quad (19) \text{ OK} \quad y \leq -x + 1 \quad (19) \text{ X}$$

$$\omega = \sqrt{x^2 + y^2} \rightarrow \left(\frac{\sqrt{2}}{2}\right)^2 + 2 \leq \omega \leq \frac{29}{2} \rightarrow x \leq \frac{v}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} \leq \frac{v\sqrt{2}}{2} \leq x \leq \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} \leq \frac{v}{2}$$

subject _____

$$x - 3y - 1 = 0 \quad (1^{\circ}, 0) \rightarrow A \text{ s } 1 \quad B \text{ s } -3 \quad C \text{ s } -1 \quad (8)$$

$$\frac{3}{\sqrt{10}} \text{ s } d \leftarrow$$

$$(31, 1+1)$$

شرط سه: طواضع s d $\Rightarrow |9-p| \sqrt{10} \Rightarrow$ ۲ رأس با با هم متفاوت ۹, p

$$\frac{3}{10} \text{ s } |9-p| \rightarrow \frac{3}{\sqrt{10}} = |9-p| \sqrt{10}$$

افزار ۹, p s ۰/۳ طواضع من خط ثابت

$$S \text{ s } \frac{1}{2} \times \text{ارتفاع} \times \text{قاعد} \rightarrow \frac{1}{2} \cdot (|9-p| \sqrt{10}) \cdot \frac{3}{\sqrt{10}} \text{ s } \frac{9}{20}$$

$$\frac{9}{20} \text{ s } 0/45 \dots \text{اضم برش از شرط رافعی برش}$$

$$M \text{ s } \frac{b-a}{\frac{-1}{3} - (-\frac{1}{r})} \text{ s } \sqrt{3} \rightarrow b-a \text{ s } \frac{\sqrt{3}}{4} \quad (9)$$

$$\sqrt{\frac{1}{34} + \frac{3}{34}} \text{ s } \sqrt{\frac{4}{34}} \text{ s } \frac{2}{\sqrt{34}} \text{ s } \frac{1}{\sqrt{3}} \text{ s } \frac{\sqrt{3}}{3}$$

$$r = \text{مسافت از A به نقطه} \text{ s } \sqrt{3^2 + 5^2} \text{ s } 5 \quad (10)$$

$$M_{OA} \text{ s } \frac{r}{3} \rightarrow M_L \text{ s } \frac{-r}{5}$$

$$\left. \begin{array}{l} OA \perp L \\ L' \perp L \end{array} \right\} \rightarrow OA \parallel L'$$

$$OA \text{ s } y \text{ s } \frac{r}{3} x \quad L' \text{ s } y \text{ s } \frac{r}{5} x + C \quad M_L \text{ s } \frac{-r}{5}$$

$$\text{Log} = r \text{ s } \omega \rightarrow \frac{C}{\sqrt{1^2 + (\frac{r}{3})^2}} \text{ s } \frac{C}{\frac{r}{3}} \text{ s } \frac{3C}{r} \text{ s } \omega \quad C \text{ s } \frac{r\omega}{3}$$

subject

$$L' \Rightarrow y = \frac{\varepsilon}{\mu} x + \frac{V\omega}{\mu}$$

$$L \Rightarrow y + \varepsilon = \frac{-V}{\varepsilon} (x + V)$$

$$y = \frac{-V}{\varepsilon} x - \frac{V\omega}{\varepsilon}$$

$$\left(\frac{V}{\mu} x_B + \frac{V\omega}{\mu} = \frac{-V}{\varepsilon} x_B - \frac{V\omega}{\varepsilon} \right) \times 10 \longrightarrow$$

$$14x_B + 100 = -9x_B - V\omega \longrightarrow 10x_B = -1V\omega$$

$$x_B = -V$$

$$y_B = \frac{-V\omega}{\mu} + \frac{V\omega}{\mu} = -1 \quad x_B \times y_B = \frac{V}{\varepsilon}$$