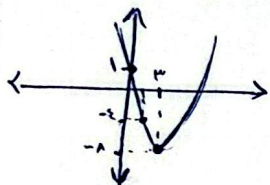


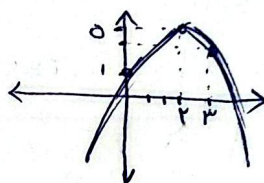
الف) $y = 2x^2 - \varepsilon x + 1$ $\xrightarrow{a>0}$ $\mu_{min} \left| -\frac{b}{2a} = -\frac{-\varepsilon}{4} = \frac{\varepsilon}{4} \right| \Rightarrow \mu_{min} \left| \frac{\varepsilon}{4} = 1 \right| \Rightarrow \mu_{min} \left| 1 \right|$

ب) $y = -2x^2 + \varepsilon x - 5$ $\xrightarrow{a<0}$ $\mu_{max} \left| -\frac{b}{2a} = -\frac{\varepsilon}{-4} = \frac{\varepsilon}{4} \right| \Rightarrow \mu_{max} \left| \frac{\varepsilon}{4} \right|$
 $-x \times \frac{9}{14} + \frac{9}{\varepsilon} - 5 = \frac{9+14-\varepsilon}{14} = \frac{-31}{14}$

الف) $y = x^2 - 4x + 1$
 $\mu_{min} \left| \frac{y}{x} = 2 \right| \quad \left| \begin{array}{c|c|c} 0 & 1 & -\varepsilon \end{array} \right|$



ب) $y = -x^2 + \varepsilon x + 1$
 $\mu_{max} \left| \frac{y}{x} = 2 \right| \quad \left| \begin{array}{c|c|c} 0 & 1 & -\varepsilon \end{array} \right|$
 $\left| \begin{array}{c|c|c} 0 & 1 & -\varepsilon \end{array} \right| \Rightarrow \left| \begin{array}{c|c|c} 0 & 1 & -\varepsilon \end{array} \right|$



$\varepsilon x^2 + Kx^2 - 9x - 2 = 0$

$\alpha\beta = -2$
 $\alpha + \beta = 1 \Rightarrow \alpha = 1 - \beta$ $\Rightarrow (1 - \beta)(\beta) = -2 \Rightarrow \beta^2 - \beta - 2 = 0 \Rightarrow (\beta - 2)(\beta + 1) = 0$
 $\left\{ \begin{array}{l} \beta = -1, \alpha = 2 \\ \beta = 2, \alpha = -1 \end{array} \right.$

$\xrightarrow{\text{ریشه}} -1, 2 \Rightarrow \frac{\varepsilon \times 1}{2} + \varepsilon K - 1A - 2 = 0 \Rightarrow 1 + \varepsilon K = 0 \Rightarrow K = -\frac{1}{\varepsilon} \checkmark$
 $-2 + K + 9 \times \frac{1}{\varepsilon} = 0 \Rightarrow K + \frac{7}{\varepsilon} = 0 \Rightarrow K = -\frac{7}{\varepsilon} \checkmark$

$x^2 - 3mx + m = 0$

$|\sqrt{\alpha} - \sqrt{\beta}| = 1 \xrightarrow{\text{ریشه}} (\sqrt{\alpha} - \sqrt{\beta})^2 = 1 \Rightarrow \alpha + \beta - 2\sqrt{\alpha\beta} = 1$

$3m - 2\sqrt{m} - 1 = 0 \Rightarrow (3\sqrt{m} + 1)(\sqrt{m} - 1) = 0 \Rightarrow \sqrt{m} = 1 \checkmark \Rightarrow m = 1$
 $\sqrt{m} = -1 \times$

$\xrightarrow{m=1} 2x^2 - 3x - 1 = 0 \Rightarrow \alpha\beta = \frac{c}{a} = \left[-\frac{1}{2} \right]$

$S = \frac{m \left(\frac{\sqrt{\Delta}}{2a} \right)}{2} = \frac{3}{\varepsilon} \Rightarrow \frac{m \left(\sqrt{(m+2)^2 - 4m} \right)}{2} = \frac{3}{\varepsilon}$

$m \left(\sqrt{(m+2)^2} \right) = 3 \Rightarrow m|m+2| = 3$

$\xrightarrow{m=3} y = x^2 - mx + 1 = x^2 - 3x + 1$
 $\text{معمولی } a, b = \frac{b}{2a} = \left[\frac{3}{2} \right]$

$\left\{ \begin{array}{l} m < 2 \Rightarrow m^2 - 2m + 2 = 0 \quad \Delta < 0 \\ m > 2 \Rightarrow m^2 - 2m - 3 = 0 \quad \Delta > 0 \end{array} \right. \Rightarrow \left\{ \begin{array}{l} m = -1 \quad \checkmark \\ m = 3 \quad \checkmark \end{array} \right.$

