

$$\frac{-\Delta}{\epsilon a} = \frac{-b^2 + \epsilon a c}{\epsilon a} \rightarrow \frac{-b^2 - 12}{-\epsilon} \leq \sqrt{\quad} \quad (1)$$

$$-b^2 - 12 \leq -28 \quad -b^2 \leq -14 \quad b^2 \leq 14 \quad b \leq \pm \sqrt{14}$$

(2) الف) دیکھتے ہیں کہ

$$f(x) = x^2 + \frac{12x^2}{t} + 1 \rightarrow t^2 \cdot x^2 + 12x + 1 \leq 0$$

$$f(x) = \frac{(t - x^2)^2}{t} - 2(t - x^2) - 1 \leq 0 \quad (3)$$

$$t^2 - 2t - 1 \leq 0 \quad (t - 1)(t + 1) \leq 0$$

$\downarrow$ 0 $\downarrow$ -1

$$t - x^2 \leq 0 \quad t - x^2 \leq -1 \rightarrow x^2 \leq \sqrt{\quad} \quad x \leq \pm \sqrt{5}$$

$$x^2 \leq -1 \quad \text{GGE}$$

$\div t \rightarrow 12x^2 - 14x + m \leq 0 \quad \beta \leq \alpha + 2 \quad (4)$
 $x^2 - 2x + \frac{m}{\epsilon} = 0 \quad \alpha + 1 \leq 2 \rightarrow \alpha \leq 1 \quad \beta \leq 2$
 $\alpha \beta \leq \frac{m}{\epsilon} \rightarrow 2 \leq \frac{m}{\epsilon} \rightarrow m = 12$

$$12x^2 - 14x + m - 1 \leq 0 \quad 2\alpha - \beta \leq \epsilon \rightarrow \beta \leq 2\alpha - \epsilon \quad (5)$$

$$\alpha + \beta = \alpha + 2\alpha - \epsilon \rightarrow 3\alpha - \epsilon = \frac{4}{3} \quad 3\alpha - \epsilon \leq 2$$

$$\alpha/\beta = 2 \times 0 \leq \frac{m-1}{3} \leq 0 \quad m-1 \leq 0 \rightarrow m \leq 1 \quad \alpha = 2 \quad \beta \leq 0$$

$$\alpha = \frac{1}{\beta} \quad \beta \times \frac{1}{\beta} \leq 1 \quad \frac{m^2 - 1}{-m} = +1 \quad m^2 - 1 = -m \quad (6)$$

$m \leq 1 \rightarrow -x^2 + \epsilon x - 1 \leq 0 \quad \Delta > 0 \quad \text{GG} \quad m^2 - 1 + m \leq 0$
 $m \leq -1 \rightarrow 12x^2 + \epsilon x + 1 \leq 0 \quad \Delta \leq 0$
 $(m+1)(m-1) \leq 0$
 $\downarrow$ 1 $\downarrow$ -1

$$\alpha \beta^2 = \varepsilon \quad (\alpha \beta)(\beta) \leq \varepsilon \rightarrow \beta(\beta) \leq \varepsilon \quad \beta \leq \frac{\varepsilon}{\beta} \quad (4)$$

$$\alpha + \beta \leq \frac{9}{\varepsilon} + \frac{\varepsilon}{\beta} \leq \frac{2\sqrt{14}}{12} \leq \frac{\varepsilon^3}{12} \quad \frac{-b}{a} \leq \frac{\varepsilon^3}{12} \quad \alpha \leq \frac{9}{\varepsilon}$$

$$x^2 + m - \varepsilon x \leq 0 \rightarrow \alpha \geq \beta \quad \alpha + \beta = \varepsilon \beta \leq \varepsilon \quad (5)$$

$$\alpha \beta \leq \beta^2 \rightarrow \frac{c}{a} \leq \frac{m}{1} \rightarrow m \leq \beta \quad \hookrightarrow = 1 \quad \alpha \leq \beta$$

$$x^2 - vx + r \leq 0 \xrightarrow{c \rightarrow \alpha} \alpha^2 - v\alpha + r = 0 \quad (1)$$

$$\alpha^3 + \frac{1}{\alpha^3} = \left(\alpha + \frac{1}{\alpha}\right)^3 - 3\left(\alpha + \frac{1}{\alpha}\right)$$

$$\frac{\alpha^3 + 1}{\alpha} + 3\left(\alpha + \frac{1}{\alpha}\right)$$

$$\frac{v\alpha}{\alpha} = v$$

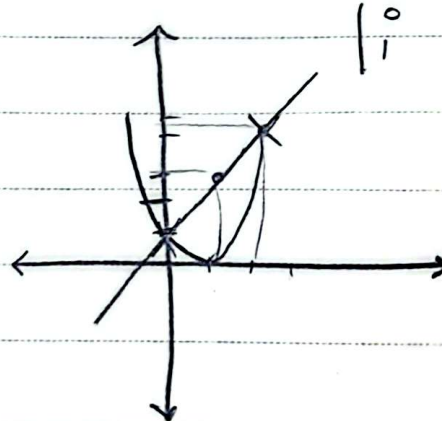
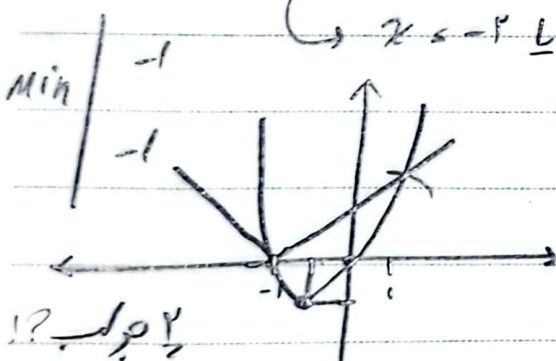
$$v^3 - 4(v)^{\frac{\varepsilon^2}{2}} \leq 3\varepsilon^3 - 2\varepsilon \leq 30.1$$

$$y = \frac{-\Delta}{\varepsilon a} \leq \frac{-b^2 + \varepsilon a c}{\varepsilon a} \leq \frac{15009}{1500} = 9.999 \quad (9)$$

$$\hookrightarrow -10t^2 + \omega_0 t \xrightarrow{t} t(+\omega_0 - 10t) = 0 \quad \begin{matrix} t \leq 0 \\ t \leq \omega \end{matrix}$$

$$x^2 + rx \leq |x+r| \quad (x-1)^2 \leq rx+1 \quad (10)$$

$$\hookrightarrow x \leq -r \leq 1$$



محل ۲