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S_{max}

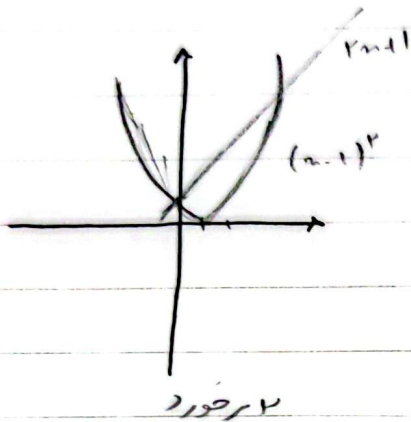
$$-\frac{b}{2a} = -\frac{\omega_0}{-r} = r/0 \rightarrow 0/r$$

$$-1 \cdot \left(\frac{r_0}{\varepsilon}\right) + \omega_0 \left(\frac{0}{r}\right) = -\frac{1r_0}{r} + 1r_0 = \frac{1r_0}{r}$$

$$n_{max} = 9210$$

$$-1 \cdot t^r + \omega_0 \cdot t = t(\omega_0 - t) = 0 \rightarrow t = 0 \leq \frac{0}{\omega_0}$$

10) ا) $(n-1)^r = rn+1$



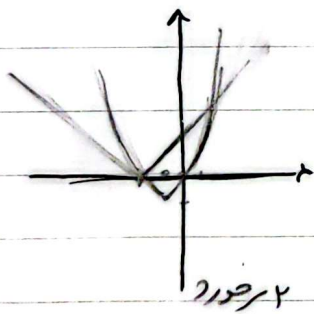
$$\begin{vmatrix} 1 & 1 \\ 1 & 1 \end{vmatrix} > \begin{vmatrix} 1 & \varepsilon \\ 1 & 1 \end{vmatrix}$$

$$x^r - rn + 1 = rn + 1 \rightarrow x^r - rn = 0$$

$$x(x - \varepsilon) = 0$$

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ب) $x^r + rx = |n+r|$
0, -r



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

$$x) \rightarrow x^r + rx = n - r \rightarrow x = \boxed{1, -r}$$

$$x < -r \rightarrow x^r + rx = -n - r \rightarrow x = \boxed{-1, -\frac{r}{x}}$$

$$① \quad \frac{-\Delta}{F_a} = V \rightarrow -b^2 - 12 = -2A \rightarrow b = \pm 2$$

$$② \quad x^2 = t \rightarrow t^2 + 2t + 1 = 0 \rightarrow 0 < 0 \quad \text{مطلوب ندارد} \quad (ف)$$

$$x^2 = 1 \rightarrow (t-0)(t+0) = 0 \rightarrow F \cdot x^2 = 0 \rightarrow x^2 = -1 \quad \times \quad (ب)$$

$$x^2 = -1 \rightarrow x^2 = 1 \rightarrow x = \pm \sqrt{1}$$

$$③ \quad S = x + x + 2 = \frac{14}{2} = 7 \rightarrow 2x = 2 \rightarrow x = 1 \rightarrow x + 2 = 3$$

$$\frac{m}{F} = 9B = 9 \rightarrow m = 12$$

$$\Delta > 0 \rightarrow 204 - 14m > 0 \rightarrow m < 14 \quad \checkmark$$

$$④ \quad F_a - B = F \rightarrow S = \alpha + \beta = 2 \rightarrow \beta = 2 - \alpha$$

$$2\alpha + \alpha - 2 - 2 = 0 \rightarrow \alpha = 2 \rightarrow \beta = 0$$

$$\frac{m-1}{F} = 0 \rightarrow m = 1$$

En

$$0 > 0 \rightarrow 24 - 12m + 12 > 0 \rightarrow m < 2 \quad \checkmark$$

$$⑤ \quad x^2 - x = -m \rightarrow m^2 + m - 2 = 0 \rightarrow m = -2, 1$$

$$m = -2 \rightarrow 2x^2 + 2x + 2 = 0 \rightarrow x^2 + x + 1 = 0 \rightarrow \Delta < 0 \quad \text{مطلوب ندارد}$$

$$m = 1 \rightarrow x^2 - x - 1 = 0 \rightarrow \Delta > 0 \quad \checkmark \rightarrow m = 1$$

$$⑥ \quad \alpha\beta = 2 \rightarrow \alpha = \frac{2}{\beta} \rightarrow \alpha\beta^2 = 2 \rightarrow \beta^2 = 2 \rightarrow \beta = \frac{2}{\alpha}$$

$$\rightarrow \alpha = \frac{9}{F} \quad \alpha + \beta = m \rightarrow \frac{9}{2} + \frac{2}{\alpha} = \frac{2V+14}{12} = \frac{22}{12}$$

$$⑦ \quad \alpha, \beta \quad F\alpha = F \rightarrow \alpha = 1$$

$$\frac{F}{\alpha} = m \rightarrow F = m$$

$$⑧ \quad \alpha\beta = 2 \rightarrow \alpha = \frac{2}{\beta}$$

$$\left(\alpha + \frac{2}{\alpha}\right) \left(\alpha^2 - 2 + \frac{F}{\alpha}\right)$$

$$(\alpha + \beta) (\alpha^2 + \beta^2 - 2) = (V) (F^2 - F - 2)$$

$$= V(F^2) = 201$$

