

19

$$y = (1+x)r + n + r$$

(1 سوال) (1, 1, 1, 1)

$$\frac{-b}{ra} = r$$

$$\frac{-1}{r(a-1)} = r \Rightarrow -fa + r = 1 \Rightarrow -ra = -r \rightarrow a = \frac{r}{r}$$

$$y = -\frac{1}{r}x^2 + n + r \xrightarrow{x(-f)} x^2 - f n - r = 0 \rightarrow (n-f)(x+r) = 0 \Rightarrow \begin{cases} x_1 = -f \times \\ x_2 = f \checkmark \\ + \text{طول} \end{cases}$$

(2 سوال) (2)

$$f(n) = m n^2 - \omega n + m$$

$$\frac{f(n)}{n} \mid \begin{array}{c} x_1 \quad x_2 \\ -1 \quad +1 \end{array}$$

$$\begin{cases} \Delta > 0 \quad b^2 - 4ac = (-\omega)^2 - 4(m)(m) > 0 \\ r\omega - r m^2 > 0 \rightarrow r m^2 < r\omega \rightarrow m^2 < \frac{r\omega}{r} \\ \alpha < 0 \rightarrow m < 0 \Rightarrow \frac{-\omega}{2} < m < \frac{\omega}{2} \quad I \end{cases}$$

$$I, II \Rightarrow \frac{-\omega}{r} < m < 0 \checkmark$$

$$x^2 - Sx + p = 0$$

$$S = r \quad p = \frac{r}{q} \quad x_1 = \frac{r + \sqrt{\omega}}{r}, \quad x_2 = \frac{r - \sqrt{\omega}}{r}$$

$$\begin{cases} x_1 = \frac{r + \sqrt{\omega}}{r} \Rightarrow x_1 - \left(\frac{r + \sqrt{\omega}}{r}\right) = 0 \\ x_2 = \frac{r - \sqrt{\omega}}{r} \Rightarrow x_2 - \left(\frac{r - \sqrt{\omega}}{r}\right) = 0 \end{cases}$$

$$(x - \left(\frac{r + \sqrt{\omega}}{r}\right))(x - \left(\frac{r - \sqrt{\omega}}{r}\right)) = x^2 + x \left(\frac{-r + \sqrt{\omega} - r - \sqrt{\omega}}{r}\right) + \left(\frac{q - \omega}{q}\right)$$

$$= x^2 + x \left(\frac{-2}{r}\right) + \frac{r}{r} = x^2 - 2x + \frac{r}{r} \xrightarrow{r^2} \cancel{x^2 - 2x + r} \quad 9x^2 - 18x + r = 0$$

$$r n^2 - 18n + m + r$$

$$\alpha < \beta \quad r\alpha^2 + \beta^2 = 12$$

(2 سوال) (2)

$$r\alpha^2 + \beta^2 + \alpha^2 - \beta^2 = 12 \Rightarrow r(\alpha^2 + \beta^2) + \alpha^2 - \beta^2 = 12 \Rightarrow r((\alpha)^2 - r(\frac{m+r}{r})) + \frac{\sqrt{4\epsilon - 1m - 19}}{121} \times \epsilon$$

$$(19 - m - r) + (\sqrt{4\epsilon - 1m - 19}) = \frac{12}{r} = 9$$

$$(-m + 19) - \sqrt{4\epsilon - 1m - 19} = 9 \Rightarrow (m - 1)^2 = -1m + 9 \Rightarrow m^2 - 19m + 9\epsilon = -1m + 9 \Rightarrow m^2 - 18m + 19 = 0 \Rightarrow (m - 9)^2 = 0 \rightarrow m = 9 \checkmark$$

$$S(r, q) \rightarrow \binom{h}{k} a(n-h)^r + 1 <$$

سوال ۷)

(۲)

$$C = \omega$$

$$a(n-r)^r + q = a(n^r - \epsilon n + \epsilon) + q = a n^r - \epsilon a n + \epsilon a + q$$

$$\Rightarrow \epsilon a + q = \omega \rightarrow \epsilon a = -\epsilon \rightarrow a = -1$$

$$\Rightarrow -(n-r)^r + q = -n^r + \epsilon n - \epsilon + q = -n^r + \epsilon n + \omega$$

$$-n^r + \epsilon n + \omega > 0 \quad n^r - \epsilon n - \omega < 0 \quad \begin{array}{c|cc} P(n) & -1 & \omega \\ \hline n & + & - & + \end{array} \quad (-1, \omega) \checkmark$$

سوال ۶)

$$a n^r - n + \sqrt{3} = 0 \quad ?? \quad \frac{1}{\alpha}, \frac{1}{\beta} = \frac{\sqrt{3}}{4}$$

(۱۷۵)

$$P = \alpha\beta = \frac{q}{\alpha} \Rightarrow \alpha^2\beta = q \quad \beta(\alpha^2 - q) = 0 \quad \begin{cases} \alpha = \pm\sqrt{q} \\ \beta = 0 \end{cases} \rightarrow \frac{1}{\beta} = \frac{1}{0} \text{ تعریف نمی شود}$$

$$\int \alpha = \sqrt{q} \rightarrow \frac{q}{\alpha} = \alpha + \beta \Rightarrow q = \alpha^2 + \alpha\beta \Rightarrow \alpha\beta = -q$$

سین غ ق ت
و ص ی ت ب ج ه ز ح ط ظ ث ذ

$$\begin{cases} \alpha = -\sqrt{q} \checkmark \rightarrow -\sqrt{q}\beta = -q \Rightarrow \beta = \sqrt{q} \checkmark \end{cases}$$

سوال ۷)

$$n^r + m n - r m = 0 \quad S = \frac{-b}{a} = -m = \alpha + \beta$$

(۲)

$$\alpha^r - m\beta = 1 \quad \alpha^r + (\alpha + \beta)\beta = 1 \rightarrow \alpha^r + \beta^r + \alpha\beta = 1$$

$$S^r - r\rho + \rho = 1 \rightarrow S^r - \rho = 1 \quad (-m)^r - (-rm) = 1 \quad m^r + rm - 1 = 0$$

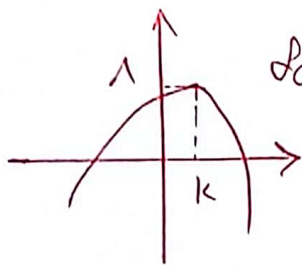
$$(m+r)(m-r) = 0$$

$$\begin{cases} m = r \\ m = -r \end{cases}$$

$$\Rightarrow m = -r \Rightarrow (-r)^r - r(-r)(1) = 1 - 14 = -13 < 0$$

$$m = r \Rightarrow (r)^r - r(-r)(1) = 1 + 14 = 15 > 0$$

$$S = \frac{-b}{a} = -(-m) = -(-r) = -r \checkmark$$



$$L(m) = mn^r + kn + \frac{m}{p} + V$$

(1) سوال

(2)

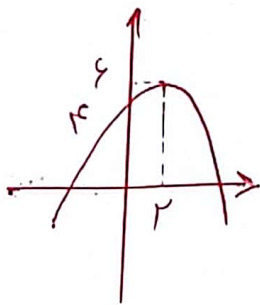
$$y_{ext}: -\frac{\Delta}{ka} = -\frac{(k)^r - f(m)(\frac{m}{p} + V)}{km} = 1 \quad k - (\frac{m^r}{p} - Vm) = -1m$$

$$\left\{ \begin{array}{l} \frac{m^r}{p} - 1m + Vm - k = 0 \rightarrow m^r - pm - k = 0 \quad (m-k)(m+p) = 0 \end{array} \right.$$

$$a \leq m \Rightarrow m \leq 0 \Rightarrow m = -p \Rightarrow -pn^r + kn + V \Rightarrow (n+4)(n-2) \xrightarrow{\substack{-4 \\ -2}} \begin{matrix} -4 \\ -2 \end{matrix} \begin{matrix} 4 \\ -2 \end{matrix} \rightarrow k = 2 \checkmark$$

(2) سوال

(2)



$$y = a(n-h)^r + k$$

$$y = a(n-r)^r + k \Rightarrow y = a(0-r)^r + k = k$$

$$ka = -r \Rightarrow a = \frac{-r}{k} = -\frac{1}{p}$$

$$y = -\frac{1}{p} \cdot (n-r)^r + k = -\frac{1}{p} (n^r - rn + k) + k = -\frac{n^r}{p} + kn + k = 0$$

$$\xrightarrow{x(-r)} n^r - rn - 1 = 0$$

$$S = \frac{-(-r)}{1} = r, \rho = \frac{-1}{1} = -1$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta} = \frac{S}{\rho} = \frac{r}{-1} = -\frac{1}{p} \checkmark$$

(1) سوال

$$n^r - (ka + k)n + (ka^r + ka + k) = 0 \rightarrow n = r$$

(2) سوال

$$\xrightarrow{n=r} (r)^r - (ka + k)(r) + (ka^r + ka + k) = 0$$

$$k - 1a - 1 + ka^r + ka + k = 0 \rightarrow ka^r - ka - 1 = 0 \xrightarrow{a+b+c=0} \begin{cases} x_1 = 1 \\ x_2 = \frac{S}{a} = -\frac{1}{p} \end{cases}$$

$$\Delta > 0 \quad \left\{ \begin{array}{l} a = 1 \Rightarrow n^r - \frac{1}{p}n + 1r = 0 \rightarrow n = (-\omega)^r - \varepsilon(1)(1r) = -1r < 0 \\ a = \frac{-1}{p} \Rightarrow n^r - \frac{1}{p^2}n + \frac{r}{p^2} = 0 \end{array} \right. \xrightarrow{\substack{n=r \\ n=4}} \begin{matrix} n=r \\ n=4 \end{matrix} \checkmark$$

$$\Delta > 0 \quad S = \alpha + \beta = -\frac{b}{a} = \frac{-(-\frac{1}{p})}{\frac{-1}{p^2}} = \frac{1}{p} \quad \alpha + \beta = \frac{1}{p} \Rightarrow \alpha = \frac{1}{p} - \frac{1}{p} = 0 \checkmark$$