

17, 18

مليک محمد حسيني

$$y = (a-1)n^r + m + r$$

$$n = r$$

$$n_s = \frac{-b}{2a} \rightarrow \frac{-1}{2(a-1)} = r \rightarrow 2a - 2 = -1 \rightarrow 2a = 1 \rightarrow a = \frac{1}{2}$$

$$\left(\frac{r}{\varepsilon} - 1\right)n^r + m + r \rightarrow -\frac{1}{\varepsilon}n^r + m + r \rightarrow -n^r + \varepsilon m + 1r \quad \Delta > 0$$

$$\Delta = b^2 - 4ac = \varepsilon^2 - 4(-1)(1r) = 14 + 4\varepsilon = 4\varepsilon$$

$$\frac{-\varepsilon \pm \sqrt{4\varepsilon}}{2(-1)} = \frac{-\varepsilon \pm 2}{-2} \rightarrow \begin{cases} -2 \\ 4 \end{cases} \rightarrow 00$$

$$f(n) = mn^r - \Delta n + m$$

|        |       |       |
|--------|-------|-------|
| $n$    | $n_1$ | $n_r$ |
| $f(n)$ | $-$   | $+$   |

$$m < 0$$

$$\Delta > 0$$

$$(-\Delta)^r - \varepsilon(m)(m) > 0 \rightarrow 2\Delta - \varepsilon m^r > 0 \rightarrow 2\Delta > \varepsilon m^r$$

$$-\frac{\Delta}{r} < m < 0$$

$$|m| < \frac{\Delta}{r}$$

$$\frac{r - \sqrt{\Delta}}{r}, \frac{r + \sqrt{\Delta}}{r}$$

$$S = \frac{r - \sqrt{\Delta} + r + \sqrt{\Delta}}{r} = r$$

$$n^r - S n + P \rightarrow n^r - r n + \frac{\varepsilon}{9}$$

$$9n^r - 11n + \varepsilon$$

$$P = \frac{r - \sqrt{\Delta}}{r} \times \frac{r + \sqrt{\Delta}}{r} = \frac{9 - \Delta}{9} = \frac{\varepsilon}{9}$$

$$2m^r - 11n + m + r = 0$$

$$\alpha < \beta$$

$$2\alpha^r + \beta^r = 11$$

$$m = ?$$

$$S = \frac{1}{r} = \varepsilon$$

$$\alpha^r + \beta^r = (\alpha + \beta)^r - 2\alpha\beta = 14 - 2P$$

$$14 - 2P + 2\alpha^r = 11$$

$$2\alpha^r - 2P = -3 \leq \alpha^r - P = -r$$

$$\beta = \varepsilon - \alpha \rightarrow P = \alpha(\varepsilon - \alpha) = \varepsilon\alpha - \alpha^r$$

$$\alpha^r - (\varepsilon\alpha - \alpha^r) = -r \rightarrow 2\alpha^r - \varepsilon\alpha + r = 0 \rightarrow \alpha^r - r\alpha + 1 = (a-1)^r = 0$$

$$\alpha = 1 \rightarrow \varepsilon - 1 = r = \beta$$

$$\frac{m+r}{r} = r \rightarrow m+r=4 \rightarrow m=\varepsilon$$



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$$S(r, q)$$

که ام باز، بار محرم؟  $\alpha = 1$  عرض

(A)

$$y = a(m-r)^r + q \rightarrow a(m-r)^r + q \rightarrow 0 = a(-r+\alpha)^r + q \rightarrow a(r)^r + q = 9a + q = 0$$

$$9a = -q \rightarrow a = -1$$

$$\rightarrow y = -(m-r)^r + q = -(m^r - \varepsilon m + \varepsilon) + q = -m^r + \varepsilon m - \varepsilon + q =$$

$$y = -m^r + \varepsilon m + \Delta \rightarrow 0 = -(m-r)^r + q \rightarrow (m-r)^r = q \rightarrow m-r = \pm \sqrt[r]{q} \rightarrow m = r \pm \sqrt[r]{q}$$

$$m = r - \sqrt[r]{q} = -1$$

$$m = r + \sqrt[r]{q} = 5$$

$$y > 0 \rightarrow y = -(m-r)^r + q = 0$$

$$q > (m-r)^r$$

$$\rightarrow |m-r| < \sqrt[r]{q}$$

$$\rightarrow -\sqrt[r]{q} < m-r < \sqrt[r]{q} \rightarrow -1 < m < 5$$

$$(-1, 5) \leftarrow \text{جواب}$$

(5)

$$\alpha m^r - Vm + q\beta = 0$$

$$S = \frac{V}{\alpha}$$

$$\beta \rightarrow + \infty$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = ?$$

(4)

$$P = \frac{q\beta}{\alpha}$$

$$\alpha = \frac{q}{\alpha} \rightarrow \alpha^r = q \rightarrow \alpha = \pm \sqrt[r]{q}$$

$$r + \beta = \frac{V}{\mu} \quad \alpha = \sqrt[r]{q} \quad \text{و } \varepsilon$$

$$\beta = \frac{V}{\mu} - r = \frac{V-q}{\mu} = -\frac{r}{\mu} \quad \text{و } \varepsilon$$

$$\alpha = -\sqrt[r]{q} \quad \text{و } \varepsilon$$

$$-r + \beta = -\frac{V}{\mu}$$

$$\frac{1}{-\sqrt[r]{q}} + \frac{1}{\frac{r}{\mu}} = -\frac{1}{\sqrt[r]{q}} + \frac{\mu}{r} = \frac{V}{q} \quad \text{جواب}$$

$$\beta = -\frac{V}{\mu} + r = \frac{r}{\mu} \quad \text{و } \varepsilon$$

(2)

$$\alpha^r + m\alpha - rm = 0$$

$$\alpha^r - m\beta = 1$$

جمع شده ها؟

(V)

$$S = -m$$

$$\alpha^r = -m\alpha + rm$$

$$-m\alpha + rm - m\beta = 1 \rightarrow -m(\alpha + \beta) + rm = 1$$

$$P = -rm$$

$$-m(-m) + rm = m^r + rm = 1$$

$$m^r + rm - 1 = 0 \rightarrow (m + \varepsilon)(m - r) = 0$$

$$m = r \rightarrow 5 > \sqrt{1.8}$$

$$S = -m$$

$$S = -r \rightarrow m = r$$

$$m = -\varepsilon \quad D < 0$$

$$S = \varepsilon \rightarrow m = -\varepsilon$$

$$S = -m = -r$$

1.8

$$\frac{-A}{F\alpha} = 1 \rightarrow rm^r - \varepsilon m - 14 \rightarrow m = r, m = \sqrt{14}$$

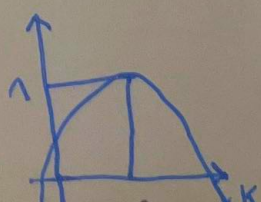
$$P(m) = m\alpha^r + \varepsilon m + \frac{m}{r} + V$$

$$\alpha = \sqrt[r]{q} = k$$

$$m = -r \rightarrow -\frac{(14 - \varepsilon(-r)(4))}{-1} = 1 \quad \checkmark$$

1.15 (A)

$$m = \varepsilon \rightarrow -\frac{(14 - \varepsilon(\varepsilon)(4))}{14} = -1 \quad \text{و } \varepsilon$$



$$\alpha_s = \frac{-b}{ra} = \frac{-r}{rm} = -\frac{r}{m}$$

$$y_s = 1$$

$$m(-\frac{r}{m})^r + \varepsilon(-\frac{r}{m}) + \frac{m}{r} + V = \frac{\varepsilon}{m} - \frac{1}{m} + \frac{m}{r} + V = 1$$

بدان

$$\frac{r-r}{-m} = \frac{-r}{-r} = 1 \quad \text{و } \varepsilon$$

$$-\frac{\varepsilon}{m} + \frac{m}{r} = 1 - V \rightarrow -1 + m^r = rm \rightarrow (m - \varepsilon)(m + r)$$

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



$$(0, \varepsilon)$$

$$y = a(m-r)^2 + 4$$

$$\varepsilon = a(-r)^2 + 4 \rightarrow \varepsilon a + 4 = \varepsilon \rightarrow \varepsilon a = -r \rightarrow a = -\frac{1}{r}$$

$$y = -\frac{1}{r}m^2 + 2m - 2 \quad y = -\frac{1}{r}(m-r)^2 + 4 = \frac{m^2}{r} - 2m + 4 - 1 = 0$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta} = -\frac{\varepsilon}{\Delta}$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = -\frac{1}{r}$$

ملیة محمد حسینی

سوال ۹

۵

$$n^2 - (\varepsilon a + \varepsilon)m + (3a^2 + 4a + 2) = 0$$

سوال ۱۵

$$n_1 + n_2 = \varepsilon a + \varepsilon$$

$$n_1 n_2 = 3a^2 + 4a + 2$$

$$2 + n_2 = \varepsilon a + \varepsilon \rightarrow n_2 = \varepsilon a + \varepsilon - 2$$

$$2(\varepsilon a + \varepsilon) = 3a^2 + 4a + 2 \rightarrow 1a + \varepsilon = 3a^2 + 4a + 2$$

$$0 = 3a^2 + 4a + 2 - 1a - \varepsilon \rightarrow 3a^2 - 2a - 1 = 0$$

$$3a^2 - 2a - 1 = 0$$

$$\Delta = (-2)^2 - 4(3)(-1) = 4 + 12 = 16$$

$$\frac{2 \pm \sqrt{16}}{2 \times 3} \quad \left\{ \begin{array}{l} a=1 \rightarrow \varepsilon a + 2 = \varepsilon + 2 = 4 \\ a=-\frac{1}{3} \rightarrow \varepsilon(-\frac{1}{3}) + 2 = \frac{2}{3} \end{array} \right.$$

$$\left\{ \begin{array}{l} a=1 \rightarrow \varepsilon a + 2 = \varepsilon + 2 = 4 \\ a=-\frac{1}{3} \rightarrow \varepsilon(-\frac{1}{3}) + 2 = \frac{2}{3} \end{array} \right.$$

بسته به مقدار  $a$  یا یکی از ریشه ها ۴ یا  $\frac{2}{3}$  می باشد

۵