

توجه: همه یکشنبه

19, 25 آفرین

سری:

نام و نام خانوادگی: تانیا ترک ترابی

$$x^r - \omega x + r = 0 \quad \beta^r - \omega \beta + r = 0 \Rightarrow \beta^r = \omega \beta - r$$

$$r\alpha = r(\omega - \beta) = r\omega - r\beta$$

$$\begin{cases} \alpha + \beta = \omega \Rightarrow \alpha = \omega - \beta \\ \alpha\beta = r \end{cases}$$

$$\frac{r\alpha + \beta^r}{\omega\beta^r} = \frac{(r\omega - r\beta) + (\omega\beta - r)}{\omega\beta - r} = \frac{r\omega - r\beta + \omega\beta - r}{\omega\beta - r} = \frac{r\omega + \beta(\omega - r) - r}{\omega\beta - r}$$

$$r^2(\omega\beta - r) - 1\beta = 1\omega\beta - r$$

$$\beta^r = \beta \times \beta^r = \beta(1\omega\beta - r) = 1\omega\beta^2 - r\beta = r\omega\beta - r\beta = r(\omega - 1)\beta$$

$$\beta^r \Rightarrow \beta^r = \omega\beta - r, \beta^r = \beta \times \beta^r = \beta(\omega\beta - r) = \omega\beta^2 - r\beta = r\omega\beta - r\beta = r(\omega - 1)\beta$$

$$y = ax^r + bx + c$$

$$f(x) = x^r$$

$$(115, -4), (3, -4)$$

$$\text{مجموع صفها} = a + \beta = r \times x_v$$

$$x_v = -\frac{b}{ra} \Rightarrow a + \beta = -\frac{b}{a}$$

$$x_v = \frac{x_1 + x_2}{r} \Rightarrow x_v = \frac{r + (-115)}{r} = -0.115$$

$$\text{مجموع صفها} = r \times x_v = 2 \times -0.115 = -0.23$$

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$$x^r + rkx + \omega = 0$$

$$(a - \beta)^r = (a + \beta)^r - 4a\beta \Rightarrow$$

$$a + \beta = -\frac{rk}{1} = -rk$$

$$(a - \beta)^r = (-rk)^r - \frac{r \times \omega}{-r}$$

$$a\beta = \omega$$

$$|a - \beta| = \frac{rk}{r} \Rightarrow (a - \beta)^r = \left(\frac{rk}{r}\right)^r = \frac{14}{9} k^r$$

$$\frac{14}{9} k^r = rk^r - 20 \Rightarrow rk^r = \frac{14}{9} k^r \Rightarrow k^r = 9$$

$$\left[\frac{k^r}{r}\right] = \left[\frac{9}{r}\right] = [4.5] = 4 \quad \left[\frac{k^r}{r}\right] = [4.5] = 4$$

مسئله سوال را با دست بزن!

$$x_v = \frac{r + (-\omega)}{r} = -1 \Rightarrow \text{منشعبات (مجموعه): } (-1, 1)$$

$$\text{مجموعه ها را در نقطه (0, 1) و (1, 0) قرار دهیم}$$

$$y = \frac{1}{r}$$

$$(x - x_v)^r = rP(y - y_v) \Rightarrow (x - (-1))^r = rP(y - 1) \Rightarrow (x + 1)^r = rP(y - 1)$$

$$(x + 1)^r = rP(y - 1) \Rightarrow 14 = rP(y - 1) \Rightarrow y - 1 = \frac{14}{rP} \Rightarrow y = 1 + \frac{14}{rP}$$

$$x + 1 = \pm \sqrt{-4P} \Rightarrow \alpha = -1 + \sqrt{-4P}, \beta = -1 - \sqrt{-4P} \quad |x^r + rkx + 1 + rP = 0 \Rightarrow \alpha + \beta = -2, \alpha\beta = 1 + rP$$

$$\alpha^r + \beta^r = \omega \Rightarrow \omega = (-2)^r - 2(1 + rP) \Rightarrow 14P = r - \omega \Rightarrow P = -\frac{r}{4} \quad |y - 1 = \frac{14}{rP} = \frac{14}{-r^2/4} = -\frac{56}{r^2} \Rightarrow y = 1 - \frac{56}{r^2} \Rightarrow A(2, -\frac{56}{4}), B(-2, -\frac{56}{4})$$

$$\Delta \geq 0 \Rightarrow r\omega + 4m \geq 0 \Rightarrow m \geq -\frac{r\omega}{4} \xrightarrow{\text{معمول}} m \geq -9 \quad (1)$$

$$x = \frac{\omega \pm \sqrt{r\omega + 4m}}{r}$$

$$x_v = -\frac{b}{ra} = 215$$

$$(3) \quad r\omega + 4m = kr^r \quad \leftarrow \text{دلتا باید مربع کامل باشد}$$

$$f\left(\frac{9}{r}\right) = -\left(\frac{9}{r}\right)^r + \omega\left(\frac{9}{r}\right) + m \Rightarrow f\left(\frac{9}{r}\right) = \frac{9}{r} + m \Rightarrow \frac{9}{r} + m \leq 0 \Rightarrow m \leq -\frac{9}{r} \xrightarrow{\text{معمول}} m \leq -9 \quad (2)$$

$$(1) \quad m = -9 \Rightarrow r\omega - 14 = 14 \quad \alpha = \frac{r}{4} = 2, \beta = \frac{9}{r} = 3 \quad (4) \quad m = -9 \Rightarrow r\omega - 14 = 14 \quad X$$

$$(2) \quad m = -5 \Rightarrow r\omega - 20 = 5 \quad X$$

$$(3) \quad m = -4 \Rightarrow r\omega - 14 = 14 \quad \checkmark$$

بازای دو مقدار -4, -9

1/2

$$y = mx^r - 12x + 5m - 1$$

$$\text{معمول: } y = a(x-h)^r + k \rightarrow (h, k), x = h \rightarrow \text{موتقان}$$

$$a > 0 \Rightarrow m > 0 \Rightarrow k = 1$$

$$k = \frac{f(a) - b^r}{f(a)} \Rightarrow r = \frac{f_m(\Delta m - 1) - 14}{f_m} \Rightarrow \Delta m = 20m^r - f_m - 14$$

$$\Rightarrow 20m^r - 12m - 14 = 0 \Rightarrow m = \frac{-(-12) \pm \sqrt{(-12)^2 - 4 \cdot 20 \cdot (-14)}}{2 \cdot 20} \Rightarrow m = \frac{12 \pm 16}{40}$$

$$m_1 = \frac{12 + 16}{40} = 1 \checkmark$$

$$m_2 = \frac{-12 + 16}{40} = 0.1 \times$$

$$\text{موتقان} = -\frac{b}{f(a)} = -\frac{12}{4} = -3 \checkmark$$

2

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

$$\alpha\beta = 2\alpha - 1 \text{ ②}$$

$$\alpha^r = \alpha/\beta \text{ ③} \rightarrow \text{بسط و جداسازی}$$

$$\alpha^r = (1)^r = 1 \checkmark$$

$$\alpha\beta = (-2 - \sqrt{3})(-2 + \sqrt{3}) = 1 \checkmark$$

$$\text{②, ③} \rightarrow \alpha^r = 2\alpha - 1 \Rightarrow \alpha^r - 2\alpha + 1 = 0 \Rightarrow (\alpha - 1)^r = 0 \Rightarrow \alpha = 1$$

$$x^r + r(1+1)x + (r(1) - 1) = 0 \Rightarrow x^r + 2x + 1 = 0 \Rightarrow x = -2 \pm \sqrt{3} \Rightarrow \alpha = -2 - \sqrt{3}, \beta = -2 + \sqrt{3}$$

$$a = 1 \checkmark$$

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$$x^r - vx^r - 5 = 0 \Rightarrow y = x^r \Rightarrow y^r - vy - 5 = 0 \Rightarrow y = \frac{v + \sqrt{49}}{2}, y_r = \frac{v - \sqrt{49}}{2}$$

$$y > 0 \Rightarrow x_{1,2} = \pm \sqrt{\frac{v + \sqrt{49}}{2}}$$

$$y_r = \frac{v - \sqrt{49}}{2} \Rightarrow x_1 = \sqrt{\frac{v + \sqrt{49}}{2}}, x_2 = -\sqrt{\frac{v + \sqrt{49}}{2}}$$

$$S = x_1 + x_2 = \left(\sqrt{\frac{v + \sqrt{49}}{2}}\right) + \left(-\sqrt{\frac{v + \sqrt{49}}{2}}\right) = 0 \quad P = x_1 \cdot x_2 = \left(\sqrt{\frac{v + \sqrt{49}}{2}}\right) \left(-\sqrt{\frac{v + \sqrt{49}}{2}}\right) = -\frac{v + \sqrt{49}}{2}$$

$$rP^r - 2SP + 2S = 0 \Rightarrow rP^r = 0 \Rightarrow rP^r = 2x \left(\frac{-v - \sqrt{49}}{2}\right)^r = 59 + v\sqrt{49}$$

$$y = kx^r - 4x - 9$$

$$x = -\frac{b}{f(a)} = -\frac{r}{k}$$

$$y = k(x)^r - 4(x) - 9 \Rightarrow y = k\left(\frac{r}{k}\right)^r - 4\left(\frac{r}{k}\right) - 9$$

$$\Rightarrow y = -\frac{r}{k} - 9 \quad \text{معمول} = \left(\frac{r}{k}, -\frac{r}{k} - 9\right)$$

$$y = -4x - 9 \Rightarrow -\frac{r}{k} - 9 = -\frac{r}{k} - 9 \Rightarrow k = 2$$

$$y = -\frac{r}{k} - 9 \quad k = 2 \Rightarrow y = -\frac{r}{2} - 9 \Rightarrow$$

$$y = -1 \rightarrow \text{موتقان}$$

$$-mx^r + mx + 1 = -m - x \Rightarrow -mx^r + (m+1)x + (1+m) = 0 \quad \Delta < 0 \rightarrow \Delta = b^r - 4ac \Rightarrow$$

$$\Delta = (m+1)^r - 4(-m)(1+m) \Rightarrow (m+1)^r + 4m(1+m) < 0 \Rightarrow \Delta m^r + 4m + 1 < 0 \Rightarrow$$

$$\Delta = 4^2 - 4 \cdot 5 \cdot 1 = 16 - 20 = -4 \Rightarrow m = \frac{-4 \pm \sqrt{16}}{2 \cdot 5} \Rightarrow m_1 = -0.2, m_2 = -1$$

$$-1 < m < -0.2 \rightarrow \text{موتقان}$$

بین ۰.۲- و ۱- معده صاف است

$$x = \frac{-5 \pm \sqrt{25 - 4(-1)(m)}}{-2} < \frac{9}{2} \leadsto \pm \sqrt{25 + 4m} < 4$$

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$$\bullet \leq 25 + 4m < 14 \leadsto -25 \leq 4m < -9 \leadsto -\frac{25}{4} \leq m < -\frac{9}{4} \leadsto m \in \left\{ -4, -5, -4, -3 \right\}$$

چون عبارت زیر را می‌توان
است باید نوشتی باشد!