

نام و نام خانوادگی هجرت مهری پاسخنامه تشریحی تکلیف شماره ۱۹ کلاس ۱۲ ریاضی

$$a_1, a_0 \sim n_1, n_2, n_2 = 3n_1 \rightarrow 3n_1^2 - a_1 + \epsilon \xrightarrow{n_1} 3n_1^2 - a_1 + \epsilon = 0$$

$$\Rightarrow 3\epsilon n_1^2 = 3a_1 \rightarrow 12n_1 = a \rightarrow 3n_1^2 - 12n_1^2 = -\epsilon \rightarrow a n_1^2 = \epsilon$$

$$n_1^2 = \frac{\epsilon}{a} \rightarrow n_1 = \pm \sqrt{\frac{\epsilon}{a}}, n_2 = \pm 3 \Rightarrow a = \pm 12 \rightarrow 12 = a \text{ عدد اول}$$

۱

$$\frac{1}{\sqrt{a}} + \frac{1}{\sqrt{b}} = 0 \rightarrow \frac{\sqrt{b} + \sqrt{a}}{\sqrt{ab}} \rightarrow (\sqrt{b} + \sqrt{a})^2 = 5 + 2\sqrt{p} = \left(\frac{5}{2}\right)^2$$

$$\frac{m+1\epsilon}{24} + \frac{12}{24} = \frac{m+24}{24} = \frac{25}{24} \rightarrow m = -1$$

۲

$$p \sim m n^2 + 3n + 2 \rightarrow \frac{p}{m} \xrightarrow{m=-1} \frac{p}{-1} = -2$$

$$r n^3 + k n^2 - 9n - 2, \quad n^2 - 5n + p \Rightarrow n^2 - n - 2 \quad \times (p n + q)$$

$$p n^3 + q n^2 - p n^2 - 9n - 2 p n - 2 q = r n^3 + k n^2 - 9n - 2$$

$$\sim \left. \begin{array}{l} p = r \\ q = 1 \\ q - p = 1 \end{array} \right\} 1 - r = k = -3$$

۳

$$\Delta = 24 - 4a \rightarrow \frac{-4 \pm \sqrt{16 - 4a}}{2} \rightarrow \left. \begin{array}{l} -2 - \sqrt{4-a} \\ -2 + \sqrt{4-a} \end{array} \right\}$$

$$\sim 3(-2 - \sqrt{4-a})^2 + 2(-2 - \sqrt{4-a})^2 = 12\sqrt{p} + 12\Delta$$

$$40 - 5a - 4\sqrt{4-a} = 12\sqrt{p} + 12\Delta \rightarrow -5a - 4\sqrt{4-a} = 12\sqrt{5} - 5$$

$$\underline{a=1}$$

۴

$$n^2 - 7n^2 - 5 = 0 \xrightarrow{n^2=a} a^2 - 7a - 5 = 0 \rightarrow s=7, p=-5$$

$$2p^2 - 3sp + 2s \sim 2(-5)^2 - 3(7)(-5) + 12 = 149$$

۵

$$x'_1 = \frac{1}{r} \cdot \frac{1}{r}, x'_r = \frac{1}{r} \cdot \frac{1}{r} \sim x'_1 + x'_r = \frac{1}{r} + \frac{1}{r} + 1 \sim \frac{1}{r} \Rightarrow a=1$$

$$a' \cdot x \cdot n_r = \frac{1}{r} + n_1 n_r + (n_1 + n_r) \frac{1}{r} = \frac{1}{r} - \frac{r}{r} - \frac{1}{r} = -r$$

$$\Rightarrow \frac{b}{r} = -r \Rightarrow b = -r^2$$

$$\left[\frac{a \cdot b}{r} \right] = \left[\frac{-r^2}{r} \right] = -r$$

$$\alpha + \beta = 1, \alpha \cdot \beta = \frac{-b}{a} \sim r \cdot (1 - \alpha)^r + r \cdot \alpha^r - r \cdot (1 - \alpha) \leq 1$$

$$\beta = 1 - \alpha$$

$$\rightarrow r \cdot \alpha^r - r \cdot \alpha + r = 0 \xrightarrow{\div r} r \cdot \alpha^r - r \cdot \alpha + 1 = 0 \rightarrow a=r, b=-1$$

$$r \cdot \alpha^r - r \cdot \alpha + 1 = 0 \sim |\alpha - \beta| = \frac{\sqrt{\Delta}}{|a|} \sim \frac{\sqrt{r \cdot -1}}{r} = \frac{\sqrt{r}}{r}$$

$$x^r - (a+1)x + a = 0 \sim 1 - a - 1 + a = 0 \sim n_1 = 1, n_r = \frac{r}{a}$$

$$x^r - r x + r = 0 \sim (x-1)(x-r) = 0 \rightarrow n_1 = 1, n_r = r$$

$$x^r - 1 \cdot x + b \sim \alpha, \alpha^r \rightarrow r \alpha + r = 1 \rightarrow \alpha \leq \frac{1}{r}$$

$$\alpha + r = 1$$

$$(r-1)(1-r) = r$$

$$S = -1, p = -m^r - 1, \alpha^r + \beta^r = S^r - r p = 1 + r m^r + r$$

$$\sim r m^r + r \sim \min = \frac{-\Delta}{r a} = \frac{r \cdot r \cdot r}{r} = r$$

$$\alpha^r + \beta^r = \Delta \quad \left\{ \begin{array}{l} q a + r b + c = r \Delta a - \Delta b + c \rightarrow \Delta b = r \Delta a \end{array} \right.$$

$$\sqrt{\frac{-b}{r a}} = -1, \frac{\Delta}{r a} \leq 1$$

$$y = a(n+1)^r + 1 \rightarrow y = a n^r + a + r a n + 1, S^r - r p = \Delta$$

$$\left(\frac{r a}{a} \right)^r - r \left(\frac{a+1}{a} \right) = \Delta \rightarrow a = -\frac{r}{r}, c = a+1 = \frac{1}{r}$$