

معرفان یزدی دهم سری ۲۲ $\alpha^2 - \delta\alpha + \gamma = 0$ $\alpha + \beta = \delta$ $\alpha\beta = \gamma$ $\xrightarrow{\text{سری ۲۲}}$

$$\Sigma\alpha + \beta = \gamma \quad \alpha + (\alpha + \beta) = \gamma \quad \alpha + \delta$$

و نیز $\alpha = \frac{\delta + \sqrt{\gamma}}{\gamma} \quad \beta = \frac{\delta - \sqrt{\gamma}}{\gamma}$

$$\Sigma\alpha + \beta = \gamma \quad \frac{\delta + \sqrt{\gamma}}{\gamma} + \frac{\delta - \sqrt{\gamma}}{\gamma} = \frac{2\delta + \gamma\sqrt{\gamma}}{\gamma}$$

$$(\Sigma\alpha + \beta)^\delta = \left(\frac{2\delta + \gamma\sqrt{\gamma}}{\gamma} \right)^\delta$$

$$\delta\beta^\gamma = \delta \left(\frac{\delta - \sqrt{\gamma}}{\gamma} \right)^\gamma = \delta \left(\frac{\gamma - \delta\sqrt{\gamma}}{\gamma} \right)$$

$$\frac{(\Sigma\alpha + \beta)^\delta}{\delta\beta^\gamma} = \frac{\left(\frac{2\delta + \gamma\sqrt{\gamma}}{\gamma} \right)^\delta}{\delta \left(\frac{\gamma - \delta\sqrt{\gamma}}{\gamma} \right)} = 12\delta.$$

$$g = ax^2 + bx + c$$

$$(3, -4) \rightarrow a + 3b + c = -4$$

$$(1, 2, -8) \rightarrow 1 + 2\delta + 1/\delta b + c = -8 \quad \left| \begin{array}{l} a + 3b + c = 2, 2\delta - 1/\delta b + c \\ 3b + 1/\delta b = 2, 2\delta - a \\ 1/\delta b = -1, 2\delta \end{array} \right.$$

$$a + 3 \left(\frac{-1, 2\delta}{1/\delta} \right) + c = -4 \rightarrow$$

$$b = \frac{-1, 2\delta}{1/\delta}$$

$$1 + 1/\delta + c = -8 \rightarrow \boxed{c = -11/\delta}$$

$$\frac{\alpha + \beta}{\gamma} = 1 \rightarrow \alpha + \beta = \gamma$$

$$\alpha^\gamma + \beta^\gamma = (\alpha + \beta)^\gamma - \gamma\alpha\beta \rightarrow \delta = \gamma - \gamma\alpha\beta \rightarrow \alpha\beta = -\frac{1}{\gamma}$$

$$y = a(x - \alpha)(x - \beta) \xrightarrow{x=1} y = a(x^\gamma - \gamma x - \frac{1}{\gamma})$$

$$\frac{\gamma + (c - \delta)}{\gamma} = -1 \neq 1 \quad \left| \begin{array}{l} x=1 \rightarrow y = 0 - 0 - \frac{1}{\gamma} = -\frac{1}{\gamma} \end{array} \right.$$

$$a=1 \rightarrow y = x^\gamma - \gamma x - \frac{1}{\gamma} \Rightarrow \boxed{(0, -\frac{1}{\gamma})}$$

$$y = m^2 - 12m + \Delta m - 1$$

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(۹)

$$y_{\min} = c - \frac{b^2}{4a} \rightarrow \begin{matrix} a=m \\ b=-12 \\ c=\Delta m \end{matrix}$$

$$y_{\min} = \Delta m - 1 - \frac{144}{4m} = \Delta m - 1 - \frac{36}{m}$$

$$\Delta m - 1 - \frac{36}{m} = 2 \rightarrow \Delta m - \frac{36}{m} = 3 \rightarrow \Delta m^2 - 36 = 3m \rightarrow \Delta m^2 - 3m - 36 = 0$$

$$m = 3 \quad m = -\frac{12}{\Delta} \quad \begin{matrix} \text{منفی} \\ m > 0 \end{matrix} \rightarrow m = 3$$

$$\text{فرمانت} \rightarrow n = -\frac{b}{2a} = \frac{12}{2m} = \frac{6}{m} = \frac{6}{3} = 2 \rightarrow \boxed{n=2}$$

$$\Delta = 2\delta + 4m$$

$$\frac{-\delta \pm \sqrt{2\delta + 4m}}{-2} < \frac{9}{4}$$

$$-\delta \pm \sqrt{2\delta + 4m} > -9 \quad \pm \sqrt{2\delta + 4m} > -9 \quad (5)$$

$$|2\delta + 4m| > 18 \quad 4m > -9 \quad m > -\frac{9}{4}$$

$$\frac{\sqrt{\Delta}}{a} = \text{اضلاع} = \frac{4}{2}k$$

$$24k^2 - 18 = 14k^2$$

$$10k^2 = 18$$

$$4\sqrt{k^2 - 5} = 4k$$

$$4 \cdot k^2 = 18 \quad k^2 = 9$$

$$\boxed{k=3}$$

در مقدمه سوالات جای جای نوشته شده و به ترتیب نیست عددی توانم