

۲. آفرین خوب نویسنده

Subject: ()

یازدهم بهار

Date: _____

$$f^2(a) = f(-1) + a \rightarrow 1a + 1f = -f + 3a + a \quad (1)$$

$$1f - f = -1 - 1 \rightarrow a = -1 \quad (2)$$

$$f(\sqrt{2-\sqrt{3}}) + f(2+\sqrt{3}) \xrightarrow{f(\sqrt{3}) = \frac{1}{1-\sqrt{3}}} f(2+\sqrt{3}) + f\left(\frac{1}{2-\sqrt{3}}\right) \quad (3)$$

$$= \sqrt{2-\sqrt{3}} + \frac{1}{\sqrt{2-\sqrt{3}}} + \frac{1}{\sqrt{2-\sqrt{3}}} + \sqrt{2-\sqrt{3}} + f$$

$$= \frac{2\sqrt{3}-2}{\sqrt{2}} + \frac{2\sqrt{2}}{\sqrt{2}-1} + f = \sqrt{4-\sqrt{2}} + \sqrt{4} + \sqrt{2} + f = f + 2\sqrt{4} \quad (4)$$

$$\frac{2\sqrt{4}+2\sqrt{2}}{2} \quad \frac{1}{2} f^2(1) - f^2(-1) = \frac{1}{2} \times 2 \rightarrow f^2(1) - 4f^2(-1) = 4 \quad (5)$$

$$f^2(-1) - f^2(1) = 0 \xrightarrow{\times 10} -9f^2(1) + 4f^2(-1) = 10$$

$$-9f^2(1) = 10$$

$$f(1) = -\frac{\sqrt{10}}{3}$$

$$f(0) = 0, f(-1) = -\frac{17}{3}$$

$$f(x) = ax^2 + bx + c$$

$$-\frac{17}{3} = a - b + c$$

$$a - b = \frac{-17 \cdot \frac{1}{3}}{2} - 4f(-1) = \frac{1}{6}$$

$$\frac{-\sqrt{10}}{3} = a + b + c$$

$$\frac{11}{3} = -4f(-1)$$

$$\frac{2}{3} = -7b \rightarrow b = -\frac{1}{3}, c = 0, a = \frac{\sqrt{10}}{3}$$

$$f(x) = \frac{\sqrt{10}}{3} x^2 - \frac{1}{3} x \quad (6)$$

Arman

$$u=0 \rightarrow f(x) = x^m - 1$$

$$u=-1 \rightarrow f(x) = \frac{14 + x^m + x^m}{18} - 1$$

$$9m - 18 = 18 + 8m$$

$$m = \frac{18}{1} = 18$$

$$\rightarrow f(x) = \frac{x^{m-1}}{p} = \frac{18-1}{p} = \frac{17}{p}$$

$$f(-1) = \frac{1+1+1}{-1} = -1 \rightarrow f(-1) = -1$$

$$(u-1)\sqrt{1-u} = -\sqrt{(1-u)^3} \quad \text{فقط با هم برابر}$$

↓

$$u \leq 1$$

↓

$$u \leq 1 \quad \text{فقط با هم برابر}$$

$$f(u) = g(u) \quad \checkmark$$

$$u\sqrt{u} = \sqrt{u^3} \quad \text{فقط با هم برابر}$$

↓

$$u \geq 0$$

$$u \geq 0 \quad \text{فقط با هم برابر}$$

$$f(u) = g(u) \quad \checkmark$$

$$[\sqrt{u}] - [\sqrt{u}] = 0$$

فقط

$$0 \leq u < 1$$

↓

$$D = \mathbb{R}^+, 0$$

$$\sqrt{u-|u|} = 0$$

↓

$$D = \mathbb{R}^+, 0$$

$$f(u) = g(u) \quad \checkmark$$

Arman

$$\text{الف) } \left(\frac{x^2+9}{x^2-9} \right) (1) = \frac{1+1}{1-1} = \frac{2}{0} \quad \text{⑨}$$

$$\text{ب) } \left(\frac{x^2+9}{x^2-9} \right) (2) = \frac{4+9}{4-9} = \frac{13}{-5} \quad \text{⑩}$$

$$\text{ج) } f(0) \times g(-1) = 0 \times 1 = 0 \quad \text{⑪}$$

$$\text{الف) } g(n) = f^2(p_{n-1}) \rightarrow g(n) = \left\{ \begin{array}{l} (1, 1), (0, 1), \left(\frac{1}{p}, 0\right) \\ \left(-\frac{1}{p}, 1\right), \left(\frac{1}{p}, -1\right) \end{array} \right\} \quad \text{⑫}$$

$$\text{ب) } h(n) = f^2(p_n) \rightarrow g(n) = \left\{ \begin{array}{l} (-1, 1), (1, 1), (0, 0), (-1, -1) \\ (1, -1) \end{array} \right\} \quad \text{⑬}$$