

$$2F(u) = F(-2) + a \Rightarrow 2(a+1)(v) = 2a - \varepsilon + a$$

-1

$$1 \cdot a + 1 \cdot \varepsilon = \varepsilon a - \varepsilon$$

$$1 \cdot a = -1 \quad a = -\frac{1}{\varepsilon}$$

$$f(x) = \left(\sqrt{x} + \frac{1}{\sqrt{x}} \right)^2$$

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

$$\left(\sqrt{2-\sqrt{2}} + \frac{1}{\sqrt{2-\sqrt{2}}} \right)^2 = 2 \left(\sqrt{2+\sqrt{2}} + \sqrt{2-\sqrt{2}} \right)^2$$

$$\downarrow$$

$$\sqrt{2+\sqrt{2}} + \sqrt{2-\sqrt{2}} + 2$$

$$\sqrt{(\sqrt{2+\sqrt{2}} + \sqrt{2-\sqrt{2}})^2} = \sqrt{2+\sqrt{2} + 2\sqrt{2} + 2} = \sqrt{4+2\sqrt{2}}$$

$$\Rightarrow (\sqrt{4+2\sqrt{2}} + 2)^2 = 2\sqrt{4+2\sqrt{2}} + 8$$

$$\begin{aligned}
 & \gamma f(-n) - \gamma f(n) = \epsilon n^2 + n \quad \times \gamma \rightarrow \gamma f(-n) + f(n) = \gamma n^2 + n\gamma \\
 & \gamma f(n) - \gamma f(-n) = \epsilon n - n \times \gamma \rightarrow \gamma f(-n) + \gamma f(n) = \gamma n^2 - n\gamma
 \end{aligned}$$

$$- \Delta \quad \gamma f(n) = \gamma n^2 + n$$

$$f(n) = -\epsilon n^2 \frac{1}{\Delta} n$$

$$n=0 \Rightarrow \gamma f(0) = \gamma m - 1 \times -\gamma$$

- \epsilon

$$n=-\gamma \rightarrow \gamma f(0) = 1\gamma + \gamma m + \gamma m - 1 \quad \} \Rightarrow$$

$$- \gamma f(0) = -9m + \gamma$$

$$\gamma f(0) = 9m + 10$$

$$\epsilon m = 11 \quad m = \frac{9}{\gamma}$$

$$f(0) = \frac{\gamma m - 1}{\gamma} = \frac{\gamma \gamma - 1}{\gamma}$$

$$\boxed{\frac{\gamma \Delta}{\epsilon}}$$

$$\begin{aligned}
 \Delta = -1 \Rightarrow \gamma f(-1) &= \frac{\gamma + 1\gamma + \gamma}{-1} \rightarrow \gamma f(-1) = -11 \\
 & \quad \quad \quad \Delta \quad f(-1) = -9
 \end{aligned}$$

$$f(n) = (n-1)\sqrt{1-n}$$

\epsilon - برابر

$$\begin{aligned}
 g(n) &= -\sqrt{(1-n)^2} \Rightarrow -\sqrt{(1-n)^2(1-n)} \Rightarrow -(1-n)\sqrt{1-n} \\
 &\Rightarrow (n-1)\sqrt{1-n}
 \end{aligned}$$

$$f(n) = n\sqrt{n}$$

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$$g(n) = \sqrt{n^3} \Rightarrow \sqrt{n^3} \Rightarrow |n|\sqrt{n} \Rightarrow n\sqrt{n}$$

$$f(n) = \sqrt{[\sqrt{n} - [\sqrt{n}]]} \Rightarrow n \geq 0$$

$$\sqrt{n} \geq [\sqrt{n}] \Rightarrow$$

$$g(n) = \sqrt{n - |n|}$$

نقطه ۷

$$n \geq |n| \Rightarrow P_1 = [0, +\infty)$$

برای هر

$$a) \frac{f(1) + g(1)}{f(1) - g(1)} = \frac{2+1}{2-1} = 3$$

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$$b) \frac{f(2) + g(2)}{f(2) - g(2)} = \frac{3+10}{2-3} = -13$$

$$c) 0 \times 1 = 0$$

$$d) \begin{aligned} \sqrt{n-1} &= 2 & n &= 5 & \sqrt{n-1} &= -2 \\ \sqrt{n-1} &= -1 & n &= 0 & \sqrt{n-1} &= \frac{1}{\sqrt{3}} \\ \sqrt{n-1} &= 0 & n &= \frac{1}{4} & \sqrt{n-1} &= 3 & n &= \frac{10}{9} \end{aligned}$$

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$$g(n) = \left\{ (1, 1), (0, 1), \left(\frac{1}{4}, 0\right), \left(-\frac{1}{3}, 2\right), \left(\frac{10}{9}, -1\right) \right\}$$

$$\rightarrow |n| = 2 \Rightarrow n = \pm 2, |n| = -1, |n| = -2, |n| = 0, |n| = 3$$

$$h(n) = \left\{ (2, 1), (-2, 1), (0, 0), (2, -1), (-2, -1) \right\}$$