

$$\alpha \gamma + D\gamma + C \xrightarrow{\gamma \neq \gamma} \alpha \gamma + D\gamma + C$$

$$g(x) = \sqrt{x^2} \rightarrow 12 = \log(\infty)$$

$$\sqrt{x^2} = |x| \sqrt{x} \cdot x^{\frac{1}{2}} \quad x \sqrt{x} = g(x)$$

$\Rightarrow f(x) = [\sqrt{x} - [\sqrt{x}]] \rightarrow D_f = [0, \infty)$ و $g(x) = \{0\}$

$$g(x) = \sqrt{x-|x|} \rightarrow D_f = [0, +\infty), \quad g(x) = \{0\}$$

→ مسامدی دوتایم بقایا است

$$\begin{array}{r} \textcircled{9} \\ + \\ \textcircled{6} \\ \hline 15 \end{array}$$

[illegible]

$$f(0)g(-1) = 0 \times 1 = 0$$

$$\text{الف) } g(x) = f(x_{n-1}) \rightarrow g(x) = \{ (2, 1), (-5, 4), (-1, 2), (1, 5), (8, -1) \}^{-10}$$

$$h(x) = f(|x|) \Rightarrow h(x) = \{ (1, 2), (1, 4), (0, 0), (2, 2), (2, 5), (-1, 1) \}$$

کتابهای یک فرد در این بهمان در مؤرخان مختلف دال
پست (۱۹۱۸) "باج شریف و ~~شرف~~ شرف"

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

$$f(-x) = \sqrt{-x} \sqrt{-x} = -x$$

$$\Rightarrow a = -1, 1$$

$$f(x) = f(-x) + a \Rightarrow \sqrt{x^2+x} = \sqrt{-x} \sqrt{-x} + a \Rightarrow \sqrt{x^2+x} = -x + a \Rightarrow 10a = -1$$

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

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

$$\frac{1}{\sqrt{x-\sqrt{x}}} \times \frac{\sqrt{x+\sqrt{x}}}{\sqrt{x+\sqrt{x}}} = \sqrt{x+\sqrt{x}} \Rightarrow$$

$$\frac{1}{\sqrt{x+\sqrt{x}}} \times \frac{\sqrt{x-\sqrt{x}}}{\sqrt{x-\sqrt{x}}} = \sqrt{x-\sqrt{x}} \Rightarrow$$

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

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

$$f(x-\sqrt{x}) + f(x+\sqrt{x}) = \sqrt{x-\sqrt{x}} + \sqrt{x+\sqrt{x}} + x + x = 2\sqrt{x} + 2x = 2\sqrt{x} + x$$

$$xf(x) - xf(-x) = \frac{1}{x} x^2 - x$$

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

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

$$\Rightarrow -a = \frac{1}{x} \Rightarrow a = -\frac{1}{x}$$

$$-c = 0 \Rightarrow c = 0$$

$$\Rightarrow b = -1 \Rightarrow b = -\frac{1}{x} = -0,1$$

$$\Rightarrow f(x) = -\frac{1}{x} x^2 - 0,1 x$$

$$(x+y)f(x) - xf(x+y) = \frac{1}{x} x^2 - m x + \frac{1}{x} m - 1$$

$$x \rightarrow 0 \quad f(0) = \frac{1}{x} m - 1$$

$$x \rightarrow y \quad f(0) = \frac{1}{x} + \frac{1}{y} m - 1 = \frac{1}{x} + \frac{1}{y} m$$

$$\frac{1}{x} m - 1 = \frac{1}{y} + \frac{1}{y} m$$

$$\frac{1}{x} m = \frac{1}{y} \Rightarrow m = \frac{1}{x} = \frac{1}{y}$$

$$\Rightarrow f(0) = \frac{1}{x} \times \frac{1}{y} - 1 = \frac{1}{xy} - 1 = \frac{1}{x} - 1$$

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

$$\Rightarrow f(-1) = -1$$

$$f(x) = (x-1)\sqrt{1-x} \rightarrow D_f = (-\infty, 1]$$

$$g(x) = -\sqrt{1-x}^3 \Rightarrow D_g = (-\infty, 1]$$

$$-\sqrt{1-x}^3 = -\sqrt{(1-x)^3(1-x)} = -(1-x)\sqrt{1-x} \xrightarrow{x \leq 1} (x-1)\sqrt{1-x} = g(x)$$

د تابع برابرند و تساوی آنها برقرار است