

دانشگاه آزاد اسلامی

افدرین

سہ ماہی

 Y_0

۱۲.۱۰' ۱۱۱۱

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

$$f(x) = \{x-1; [x] \geq 1\}$$

$$\sum_{i=1}^n \mu_i \cdot \{a_i\}_{i=1}^n$$

$$f(x) - a + 1 \geq 0 \rightarrow f(x) \geq a - 1$$

$$\boxed{2} \Rightarrow P_x - 1 \geq 2 - 1 - 2 \geq -1 \Rightarrow \Delta K_2 \quad \textcircled{1}$$

$$\frac{[a]_q^r}{n(q)} K_n + K_{n-1} \rightarrow K_n, -\varepsilon \rightarrow K_n, -\frac{\varepsilon}{n} \rightarrow$$

① $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

$$\textcircled{1} \cup \textcircled{2} \Rightarrow D_f = \left[-\frac{\pi}{2}, +\infty\right) \quad \checkmark$$

$$y = \frac{r_2^r + r_3^r + 1x^r}{(r_2^r + r_3^r + 1)^r} = \frac{r(1x^r + 1x^r + 1x^{r+1})}{(x + \frac{r}{x})^r} = \frac{r(r_2+1)^r}{(r_2+1)^r} \quad \textcircled{P}$$

$$P(x+1) = 9x + 1$$

$$\begin{array}{r} \Lambda 2^k + 122^k + 42^k + 1 \quad | \quad 2^k + 1 \\ - \Lambda 2^k - 22^k \quad \quad \quad | \quad 2^k + 22^k + 1 \\ \hline \end{array}$$

$$x^2 + 4x + 1 = (x+1)^2$$

122-22

$$k+1$$

-12-1

$$f(x) = \begin{cases} \frac{x^2 + 2x - 1}{x^2 - 1} & ; x \neq \pm 1 \\ \frac{a_1 x + r}{x + b} & ; x = \pm 1 \end{cases}$$

$$g(x) = x + c \quad (K)$$

$$2^k + 2^r - 2 - r \xrightarrow[\text{div}]{\text{Lagrange}} (2-1)(2^r + 2r + r) \xrightarrow{2^{\pm 1}} \frac{(2-1)(2^r + 2r + r)}{(2+1)(2-1)} = \frac{(2-1)(2r+1)}{2-1}$$

$$\frac{a+r}{a+b} \quad \begin{array}{l} \xrightarrow{a=1} \\ \xrightarrow{a=-1} \end{array} \quad \begin{array}{l} r = \frac{a+r}{1+b} \Rightarrow r+rb = a+r \\ 1 = \frac{-a+r}{-1+b} \quad \textcircled{+} \quad -1+b = -a+r \\ \hline r+rb = a \end{array}$$

$$fb = r - b = \frac{1}{r} \Rightarrow \frac{1}{r} = -a + r - a, \frac{2}{r}$$

$$g(x) = x + C \rightarrow g(1) = 1 = 1 + C \rightarrow C = 0$$

$$b + c = \frac{1}{y} + r = \frac{0}{y}$$

Arman

$$f(n) = \frac{n+1}{n-c} \quad g(n) = \frac{n^2-1}{n^2+an+b}$$

$$a+b+c=$$

(r)

$$\frac{n+1}{n-c} = \frac{(n+1)(n-1)}{n^2+an+b} = \frac{n+1}{n-b} \rightarrow a-c=n-b \rightarrow b=c$$

(r)

$$(n-1)(n-b) = (n-1)^2 = n^2 - 2n + 1 \Rightarrow a = -2$$

$$g(n) = \frac{n^2-1}{(n-1)^2} = \frac{n+1}{n-1} \rightarrow n \neq 1 \Rightarrow c=1 \Rightarrow b=c=1$$

$$a+b+c = -2+1+1 = 0$$

$$f(n) = (n-1)^2 (n-1)$$

$$g(n) = f(n+1) + f(1-n)$$

(r) (r)

$$g(n) = (n-1)^2(n) + (-n-1)^2(-n) = (n^2-2n+1)n + (n^2+2n+1)(-n) = n(n^2-2n+1-n^2-2n-1) = n(-2n) = -2n^2$$

$$f(1-n) = \begin{cases} \sqrt{1-n} & n \leq 0 \\ \sqrt{1-n} & n > 0 \end{cases} \quad f(-1) + f(1)$$

(r) (r)

$$1-n = -1 \rightarrow n = 2 \Rightarrow f(-1) = \sqrt{1-(-1)} = \sqrt{2}$$

$$1-n = 1 \rightarrow n = 0 \Rightarrow f(1) = \sqrt{1-1} = 0$$

$$f(-1) + f(1) = \sqrt{2} + 0 = \sqrt{2}$$

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

$$f(4) = ?$$

(r)

$$n+\sqrt{n} = 4 \rightarrow n+\sqrt{n}-4=0 \rightarrow (\sqrt{n}-2)(\sqrt{n}+4) = (\sqrt{n}-2)(\sqrt{n}+2) = 0$$

$$\begin{cases} \sqrt{n}-2=0 \rightarrow n=4 \\ \sqrt{n}+4=0 \rightarrow n=-16 \end{cases}$$

$$n=4 \rightarrow f(4) = 4^2 + 4 = 16 + 4 = 20$$

$$f(n) = n^2 + n$$

$$f(n-1) + f(1-n)$$

(r)

$$= n(n-1) + 1 \rightarrow f(n-1) = (n-1)((n-1)^2 + 1)$$

$$f(1-n) = -(n-1)((1-n)^2 + 1)$$

$$f(n-1) + f(1-n) = (n-1)((n-1)^2 + 1) - (n-1)((1-n)^2 + 1) = 0$$

$$f(x) = \sqrt{x_2 + x_1} + x - 1$$

$$g(x) = \sqrt{b - x_2} + xk$$

$$xf - g = \{ (1, k) \}$$

$$k - \frac{b}{x}k = ?$$

$$b - x_2 \geq 0 \rightarrow b \geq x_2 \rightarrow x_2 = 1$$

$$x=1 \quad x = x_2 = a = \frac{x}{x}$$

$$b = x$$

$$xf - g \Rightarrow \sqrt{x} - x + k - 1 - \sqrt{x} - xk = -k - x = k$$

$$-x = 2k \rightarrow k = -1$$

$$x_2 = \frac{b}{x} - k = x \times \frac{x}{x} - \frac{x}{x} + 1 = x - x + 1 = 1$$

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

$$g(x) = \sqrt{x_2 + x}$$

$$D_{f \times g} = [-1, \sqrt{x}]$$

$$f \cdot g(x) = 4\sqrt{x}$$

$$D_f = m - x \geq 0$$

$$D_g = x_2 + x \geq 0$$

$$m > x$$

$$x_2 + x = x + 1$$

$$\Rightarrow m = \sqrt{x}$$

$$f - g(x) = 4\sqrt{x} = \sqrt{m - x} + x - \sqrt{x + 1} = x + m - \sqrt{x} = x + m - x\sqrt{x} = 4\sqrt{x}$$

$$x + m = 4\sqrt{x}$$

$$m = 4\sqrt{x} - x$$

$$m + n = 4 + 4\sqrt{x} - x = 0 + 4\sqrt{x}$$