

تاریخ : / /

دوره : A

نام و نام خانوادگی :

$$y = \sqrt{f(x) - x + 1} \geq 0$$

$$f(x) = \begin{cases} x-1 & [x] \geq r \\ x+r & [x] \leq r \end{cases} \rightarrow \begin{cases} x-1 & x \geq \omega \\ x+1 & x < \omega \end{cases}$$

$$\begin{array}{c|c} [-\frac{r}{p}, \omega) & \omega, +\infty) \\ \hline x+r-x+1 & x-1-x+1 \\ x+r & x > 0 \\ x > -\frac{r}{p} & \end{array}$$

$$D_y = [-\frac{r}{p}, +\infty)$$

$$g = \frac{x^p + rx^r - x - r}{(x+r-x+1)^r} = \frac{p(x^p + rx^r + x + 1)}{(x+1)^p} = \frac{p(x+1)^p}{(x+1)^p}$$

$$= \frac{p}{x+1} \rightarrow x \neq -1 \rightarrow x \neq -\frac{1}{p} \rightarrow D_y = \mathbb{R} - \left\{ -\frac{1}{p} \right\}$$

$$f(x) = \begin{cases} \frac{x^p + rx^r - x - r}{x^r - 1} & x \neq \pm 1 \\ \frac{ax + r}{a+b} & x = \pm 1 \end{cases} \quad g(x) = x + c$$

$$b + c = 9$$

$$a + c = a + r$$

$$c = r$$

$$\frac{x^p + rx^r - x - r}{x^r - 1} = \frac{(x-1)(x^p + rx^r + x + r)}{(x-1)(x+1)} = x + r$$

$$\frac{ax + r}{a+b} = x + r \rightarrow \frac{a+r}{1+b} = p \rightarrow a+r = p+pb$$

$$a - pb = 1$$

$$\begin{cases} pb - a = -1 \\ b + a = p \end{cases} \rightarrow \begin{cases} a - pb = 1 \\ -a + r = 1 + b \end{cases} \rightarrow r - a = b - 1 \rightarrow a + b = r$$

$$rb = r \rightarrow b = \frac{1}{p} \quad a = \frac{a}{p} \quad b + c = \frac{1}{p} + r = r/a$$

$$g(x) = \frac{x^2 - 1}{x^2 + 9x + 6} = \frac{(x-1)(x+1)}{(x-1)(x-1)} \quad \text{Ⓜ}$$

$$a + b + c =$$

ل. جدول زیر شرایط حاضر اینر ماسٹر و رات هم بر اینر ماسٹر $c = 1$

$$a^r + 9a + b = (a-1)^r = a^r - r a^{r-1} + \dots \rightarrow a = -r \quad b = 1$$

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

$$f(x) = (x-r)^r(x-1) \quad g(x) = f(x+1) + f(1-x) \quad \textcircled{a}$$

$$f(n+1) = (n+1-r)(n+1-1) = (n-r)^T(n) = n^r + (n-r)n^r$$

$$f(1-a) = (1-a-r)(1-a-1) = (-a-r)^r (-1) = -a^r - (-a) - (-a)^r$$

$$g(x) = \cancel{a^{10}} + \cancel{5a^9} - \cancel{5a^9} - \cancel{a^{10}} - \cancel{5a^9} - \cancel{5a^9} = -10a^9$$

$$f(1-r_n) = \begin{cases} \sqrt[n]{a} + r & a \leq 0 \\ \sqrt[n]{a} & a > 0 \end{cases}$$

$$f(-1) + f(1) = ? \quad (9)$$

$$1 - \gamma_a = -1 \rightarrow \alpha = 1 \xrightarrow{25^\circ} \epsilon_{\sqrt{1}} = 1$$

$$1 - r_A = r \rightarrow A = -1 \xrightarrow{A \leq -1} \sqrt[n]{-1} + r = 1$$

$$f(a + \sqrt{a}) = a^k + k a \quad f(4) = 9$$

$$\text{if } a = c \rightarrow c + \sqrt{c} = 9 \rightarrow a^2 + \sqrt{a} = \sqrt{9} + \sqrt{a} = 3 + 6 = 9$$

$$n + \sqrt{n} = 4 \rightarrow \sqrt{n} = 4 - n \xrightarrow{\text{square}} n = 16 - 8n + n^2 \quad | + 8n$$

$$\rightarrow a^T - 1 \times a + 1 \times 50 \rightarrow (a-1)(a-50) = 0$$

$\sqrt{5}a \neq 4$ $a = \sqrt{5}b$
 $4 + \sqrt{5} = 4$ $9 + \sqrt{5} \neq 4$
 $\checkmark$ $12 \neq 4$

تاریخ : / / (-n+1)

$$f(n-1) + f(1-n) = 0 \text{ من } f(n) = n^3 + n = n(n+1)(n-1) \quad (1)$$

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

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

$$f(n-1) + f(1-n) = [(n-1)(n)(n-2)] - [(n-1)(n-2)(n)] = 0$$

$$f(x) = \sqrt{ax - x^2} + k - 1 \quad g(x) = \sqrt{b - x^2} + k \quad (4)$$

$$f - g = \{(b, k)\} \quad xa - \frac{b}{x} - k = ?$$

$$ax - x^2 \geq 0 \rightarrow -x^2 \geq -ax \rightarrow ax \geq x^2 \rightarrow \frac{xa}{x} \leq x$$

$$b - x^2 \geq 0 \rightarrow -x^2 \geq -b \rightarrow bx \leq x^2 \rightarrow x \leq \frac{b}{x}$$

$$1 = \frac{xa}{x} \rightarrow a = \frac{x}{x} \quad xa - \frac{b}{x} - k = x - 2 + 1 = (x)$$

$$\frac{b}{x} = 1 \rightarrow b = x$$

$$f(1) - g(1) = xk - 2 - xk = -k - 2 = k \rightarrow k = -1$$

$$f(x) = \sqrt{m-x} + n \quad g(x) = \sqrt{x^2 + r} \quad (10)$$

$$D = [-1, \sqrt{r}] \quad f - g(x) = 4\sqrt{r} \quad m+n = ?$$

$$f \wedge g \rightarrow D_f \cap D_g = [b, \sqrt{r}] \quad m+n = 1\sqrt{r} - 2 + \sqrt{r} = 2 + 1\sqrt{r}$$

$$x^2 + r \geq 0 \rightarrow x^2 \geq -r \rightarrow [-1, +\infty)$$

$$m-x \geq 0 \rightarrow m \geq x \rightarrow m \leq \sqrt{r} \rightarrow (-\infty, \sqrt{r}]$$

$$f(x) - g(x) = \sqrt{x-r} + n - \sqrt{x^2 + r} = 2 + n - 2\sqrt{r} = 4\sqrt{r}$$

$$\Rightarrow n = 1\sqrt{r} - 2$$