

$$y = \sqrt{f(x)} \cdot x+1 \rightarrow f(x) \cdot x+1 \begin{cases} [x] \leftarrow [x+1] \cdot x+1 \rightarrow x+1 \text{ (A)} \\ [x] \leftarrow [x+1] \cdot x+1 \rightarrow x+1 \text{ (B)} \end{cases}$$

(A) $\cap (B) = (\omega, +\infty)$ $\neq \emptyset$
 (B) $\cap (A) = \left[-\frac{e}{p}, \omega\right) \neq \emptyset$
 (C) $\cap (D) = \left[-\frac{e}{p}, \omega\right)$

$$A \cup B = \left[-\frac{e}{p}, \omega\right)$$

$$y = \frac{r+x^r + r^r x^{r+1} + 1}{(r+x+1)^r} = \frac{r(1+x^r + r^r x^{r+1} + 1)}{(r+x+1)^r} = \frac{r(r+x+1)^r}{(r+x+1)^r} = \frac{r}{r+x+1}$$

$$D = R - \left\{\frac{1}{r}\right\}$$

$$r+x+1 = \frac{1}{r}$$

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

$$x+r = x+c \rightarrow c=r \rightarrow g(x) = x+r$$

$$\begin{cases} x=1 \rightarrow \frac{a+r}{1+b} = r \rightarrow r^r b = a+r \\ x=-1 \rightarrow \frac{-a+r}{-1+b} = 1 \rightarrow b-1 = -a+r \end{cases} \rightarrow \begin{cases} a=r, \omega \\ b=0, \omega \end{cases}$$

$$b+c = r, \omega$$

$$g(x) = f(x) \rightarrow \frac{x^r - 1}{x^r + ax + b} = \frac{x+1}{x-c} \xrightarrow{c=1} \frac{(x+1)(x+1)}{(x-1)(x-1)} = \frac{x+1}{x-1}$$

$a = -r$
 $b = 1$

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

$$f(x+1) = (x-r)f(x) = (x-r)(x-r)f(x) = (x-r)^2 f(x) = \dots = 1 \cdot x^r = g(x)$$

$$f(-x) = (-x-r)f(-x) = (-x-r)(-x-r)f(-x) = \dots = 1 \cdot x^r = g(x)$$

$$1. r_n = -1 \rightarrow r_n = r_{n-1} = 1$$

$$1. r_n = r \rightarrow r_n = -r \rightarrow r = -1$$

$$f(x) = \sqrt[n]{x+1} = \sqrt[n]{-1+1} = 1$$

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

$$\left. \begin{array}{l} f(x) = 1 \\ f(-1) = -1 \end{array} \right\} \text{for } x \in \mathbb{Q}$$

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$$n + \sqrt{n} = 4 \rightarrow n = 5$$

$$f(y) = (x)^{\frac{1}{n}} + \sqrt[n]{x} = \sqrt[n]{4} + \sqrt[n]{1} = \sqrt[n]{4} + 1$$

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$$f(n-1) + f(1-n) = (n-1)^{\frac{1}{n}} + (n-1) + (1-n)^{\frac{1}{n}} + (1-n) = \frac{1}{n} + \frac{1}{n} + \frac{1}{n} + \frac{1}{n} = \frac{4}{n}$$

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$$\left. \begin{array}{l} a = \frac{1}{p} \\ b = \frac{1}{q} \end{array} \right\} \begin{array}{l} \text{بزرگ} \\ \text{صغر} \end{array}$$

$$r f g(1) = k, r k - r k = k \rightarrow k = -1$$

$$r a - \frac{1}{p} k = 1 - r + \frac{1}{p} = \frac{1}{p}$$

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$$r_{n+1}, n, n-1, n, n \rightarrow n = V$$

$$\text{mod } [1, V]$$

$$f g(x) = \sqrt{V-x} + n - \sqrt{4+x} = 4\sqrt{x} \rightarrow r + n - r\sqrt{x} = 4\sqrt{x} \rightarrow n = 4\sqrt{x} + r\sqrt{x} = 1\sqrt{x} + 3\sqrt{x}$$

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$$m+n = V + 1\sqrt{x} + 3\sqrt{x} = 1\sqrt{x} + 4$$