

$$f(n) \leq \begin{cases} \gamma_{n-1} & [n] \in R \rightarrow 0 \leq x \star \\ \gamma_{n+\gamma} & [n] \in E \rightarrow n < \omega \star \end{cases} \quad [-\gamma, \omega) \text{ (1)}$$

$$\star y \leq \sqrt{\gamma_{n+\gamma} - n + 1} \rightarrow \gamma_{n+\gamma} \geq 0 \rightarrow n \geq -\gamma/\omega \rightarrow [-\gamma/\omega, 0)$$

$$\star y \leq \sqrt{\gamma_{n-1} - n + 1} \rightarrow n \geq 0 \rightarrow n \geq \omega$$

$$\div \gamma \quad \frac{\gamma \gamma^{\gamma} + \gamma \gamma^{\gamma} + \gamma_{n+1}}{(\gamma_{n+1})^{\gamma}} \rightarrow \gamma \gamma (\gamma_{n+1})^{\gamma} \rightarrow \gamma \quad \gamma_{n+1} \quad (2)$$

$$\rightarrow IR = [-1/\gamma]$$

$$f(n) \leq \begin{cases} (\gamma^{\gamma} - 1)(\gamma + \gamma) \leq n + \gamma & n \neq -1 \rightarrow g(n) = n + c \quad (3) \\ \gamma^{\gamma} - 1. & \Rightarrow c \leq \gamma \end{cases}$$

$$\begin{cases} a n + \gamma & n \leq -1 \xrightarrow{1, \gamma} a + \gamma \xrightarrow{\gamma} a + \gamma \leq b + \gamma \\ n + b & b + 1 \end{cases} \quad a \leq \gamma b + 1 \quad (1)$$

$$\text{ol: } \frac{\gamma - a}{b - 1} \leq 1 \rightarrow \gamma - a \leq b - 1 \rightarrow \gamma - \gamma b - 1 \leq b - 1$$

$$\Rightarrow b \leq 1/\gamma, a \leq 1/\gamma$$

$$\Rightarrow b + c \leq 1/\gamma + \gamma \leq \frac{1}{\gamma} \quad (4)$$

$$g(n) \leq \frac{(n+1)(n-1)}{(n-1)(n-1)} = \frac{n+1}{n-1} \rightarrow (n-1)^{\gamma} \leq n^{\gamma} \gamma + 1 \quad (5)$$

$$a = -\gamma, b \leq 1, c \leq 1$$

$$f(n) \leq \frac{n+1}{n-\gamma} \rightarrow \text{قاعده کسری}$$

$$c \leq 1$$

Genobar



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

$$2. f(1-n) \leq (-n-2)(-n)^n = n^n - n^n - n^n$$

$$-n^n$$

$$3. 1-2n \leq -1 \rightarrow n \geq 1 \quad n^2 \sqrt{1} \leq n^2 \rightarrow (4)$$

$$4. 1-2n \geq 3 \rightarrow n \leq -1 \rightarrow \sqrt{-1} + 2 \leq 1$$

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

$$6. \Rightarrow f(4) \leq 4^n + 4(4) = 256 + 16 = 272$$

$$7. f(n-1) \leq (n-1)^n + (n-1)$$

$$8. f(1-n) \leq (1-n)^n + (1-n)$$

$$9. (n-1)^n + (1-n)^n \rightarrow \text{تقریباً هم میسر می شود}$$

فرد هم مساوی می شود زیرا در جواب (نفره) مساوی است

$$10. 2f-g = f(1, k) \rightarrow \text{عبارت زیر را بساز}$$

را به 1 بیاور

$$11. D_f \Rightarrow n - 2a > 0 \rightarrow n > \frac{2a}{\epsilon}$$

$$12. D_g \Rightarrow b - 2n > 0 \rightarrow n < \frac{b}{\epsilon} \rightarrow \frac{2a}{\epsilon} = \frac{b}{\epsilon} \Rightarrow a = b \Rightarrow b \leq n, \text{ as } n \leq b$$

$$13. \Rightarrow 2f-g = 2\sqrt{a} + 2k - 2 - \sqrt{a} - k^2 \rightarrow -k - 2 \leq k \rightarrow k \leq -1$$

$$14. 2a - b + k = n - 2(-1) = 2$$



Senobar

$$D_{f \times g} = [-1, 1] \rightarrow \text{مستقيم}$$

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$$f(m) \rightarrow D_f = x \leq m$$

$$\Rightarrow m \leq \sqrt{n}$$

$$g(m) \rightarrow D_g = x \geq -1$$

$$n \leq \sqrt{4} - 1$$

$$f(n) - g(n) \geq \sqrt{n} + n - 1 \geq \sqrt{4} + 4 - 1 \geq 4 \geq 4$$