

$$f(n) = \begin{cases} n-1 & n > 0 \\ n+2 & n < 0 \end{cases}$$

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

if $n > 0$ $y = \sqrt{n-1-n+1}$ $y = \sqrt{n}$ $n \geq 0 \Rightarrow (n \geq 0) \cap$

if $n < 0$ $y = \sqrt{n+2-n+1}$ $y = \sqrt{n+3}$ $n \geq -\frac{3}{4} \Rightarrow -\frac{3}{4} \leq n < 0 \cap$

$$I \cup II = \left[-\frac{3}{4}, +\infty\right)$$

$$y = \frac{e^{(n^2-4n+1)}}{(n+1)^2} = \frac{e^{(n^2-4n+1)}}{(n+1)^2} = \frac{e^{(n^2-4n+1)}}{(n+1)^2}$$

نقطة صفرية $\Rightarrow n \neq 1$ $n \neq -\frac{1}{2}$ $D_y \in \mathbb{R} - \left\{-\frac{1}{2}\right\}$

$$\frac{n^3 - n + (n^2 - n)}{n^2 - 1} \Rightarrow \frac{n(n^2 - 1) + n(n^2 - 1)}{n^2 - 1} \Rightarrow (n+1) \Rightarrow (n+1)$$

$$\frac{a+1}{b-1} \leq 1 \Rightarrow a+1 \leq b-1$$

$$\frac{-a+1}{b-1} \leq 1 \Rightarrow -a+1 \leq b-1 \Rightarrow a \geq b$$

$$\Rightarrow b \leq a \leq \frac{a}{b}$$

$$\frac{1}{b} \leq \frac{a}{b} \leq \frac{a}{b}$$

$$\frac{(n-1)(n+1)}{n^2 - a n + b} = \frac{n+1}{n-1} \quad D_f \leq D_g$$

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

$$D_f \leq D_g \Rightarrow n^2 - (a+1)n + 1 \leq n^2 - a n + b \Rightarrow a \leq b$$

$$\Rightarrow -\frac{1}{2} \leq a \leq 0$$

$$(n-1)^n (n) + (-n-1)^n (-n) \Rightarrow n \left((n-1)^n (n+1)^n \right)$$

$$n \left((n-1+n-1) / (n-1-n-1) \right) = -n n^n$$

$$n \leq 1 \Rightarrow f(-1) = \sqrt{-1} \text{ is not real} \\ n \leq 1 \Rightarrow f(0) = \sqrt{-1} \text{ is not real}$$

(2) (7)

$$f(-1) = \sqrt{-1}$$

$$f \in \mathbb{C} \text{ and } f \in \mathbb{R}$$

!! $n \leq 1$ (1) (7)

$$(n-1)^m \cdot n-1 + (1-n)^m \cdot (1-n) \Rightarrow (n-1)^m \cdot n-1 - (n-1)^m \cdot n-1 = 0$$

(2) (1)

$$D_f \cap D_g \neq \emptyset$$

$$D_g = (\infty, 1]$$

$$D_f = [1, \infty)$$

$$b \leq 1$$

$$a \leq \infty$$

(1)

(2)

$$f(x) = k-1 \\ g(x) = k$$

$$\Rightarrow k-1 - k = -1$$

$$-k-1 \leq k$$

$$\Rightarrow k \geq -1$$

$$k \geq \frac{k}{k} = 1 - (-1) = 0$$

$$D_f \cap D_g = [-6, 7]$$

$$D_{g(m)} = E(1, \infty)$$

$$D_{f(m)} = (\infty, 1]$$

$$m \leq 1$$

$$k \leq n - \sqrt{v} \leq \sqrt{v} \quad \sqrt{v} - \sqrt{v} \leq b$$

$$\sqrt{v} - \sqrt{v} \leq a \leq \sqrt{v} + a$$

(1)

(2)