

A Boy ...

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

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

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

if  $n < 0$   $y = \sqrt{n+1-n+1}$   $y = \sqrt{n+2}$   $n \geq -\frac{1}{2} \Rightarrow -\frac{1}{2} \leq n < 0 \text{ II}$

$$I \cup II = \left[-\frac{1}{2}, +\infty\right)$$

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

$n \neq 0 \Rightarrow n \neq \frac{1}{2} \Rightarrow (n \neq \frac{1}{2})$

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

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

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

$$\Rightarrow b \leq \frac{1}{2} \leq a \leq \frac{1}{2}$$

$$\frac{1}{2} \leq a \leq \frac{1}{2}$$

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

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

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

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

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

$$n \left( \frac{(n-1-n-1)}{n} \right) = -1 \cdot n^n$$

$$n \leq 1 \Rightarrow f(-1) = \sqrt{-1} = i$$

$$n \leq -1 \Rightarrow f(n) = \sqrt{-1} = i$$

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$$f(-1) = i$$

$$n \leq i$$

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

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

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$$D_f \cap D_g \leq 1 \quad D_g = (\infty, 1] \quad D_f = (1, \infty)$$

$$\downarrow \quad \downarrow$$

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

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

$$g(x) = \sqrt{k}$$

$$\Rightarrow \sqrt{k-1} = \sqrt{k} - 1$$

$$-k-1 \leq k$$

$$\Rightarrow k \leq 1$$

$$\sqrt{2} \cdot \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}} = (-1) \leq \sqrt{2}$$

$$D_f \cap D_g = [-6, 7] \quad D_{g(m)} = E(1, \infty) \quad D_{f(m)} = (\infty, 1]$$

1.

$$m \neq 1$$

$$\sqrt{2} - \sqrt{2} \leq \sqrt{2} \quad \sqrt{2} - 1 \leq 1$$

$$\sqrt{2} - 1 + 2 \leq \sqrt{2} + 2$$