

$$n - \varepsilon > 1, n-1$$

$$n - 1, n+1, \Rightarrow n - \varepsilon, n+1, n+2$$

$$\Rightarrow (n-1)(n+1) > (n-1)(n+2)$$

$$\frac{-\varepsilon}{-1+1} \Rightarrow \varepsilon > [-1, \infty)$$

$$f(x) \leq 1 \quad x \leq -1 \quad f(n) = n-1$$

الف) $f(x) \Rightarrow 11$

ب) $f(n-1) = 1 \Rightarrow n-1$

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

نقطه $(a, 1)$ روی خردک است
 $\Rightarrow 1a^2 - 1a + 1 \leq 0 \Rightarrow a^2 - a + 1 \leq 0$
 $\Rightarrow a \leq 1$

$$1) f \circ f^{-1} = \{(0, 0), (1, 1), (2, 2), (3, 3)\}$$

$$2) f^{-1} \circ f = \{(2, 2), (1, 1), (0, 0), (3, 3)\}$$

$$3) f \circ f^{-1} = \{(2, 2), (0, 0)\}$$

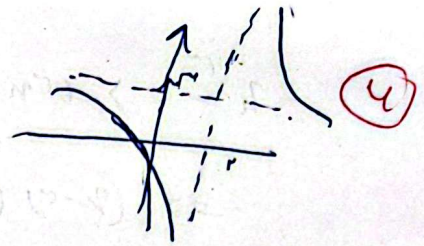
$$4) g^{-1} \circ f = \{(2, 1), (1, 2), (0, 1)\}$$

$$f \circ g^{-1} = \{(1, 1), (2, 2), (0, 0)\}$$

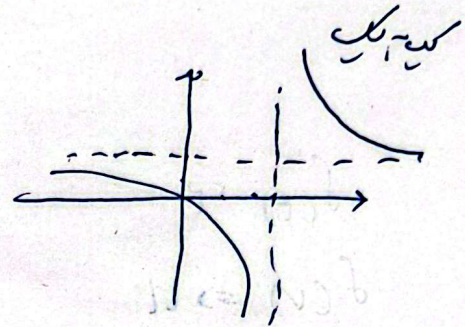
$$\frac{h}{f \circ g^{-1}} = \{(1, \frac{1}{2}), (2, \frac{1}{2}), (0, \frac{1}{2})\}$$

$$\frac{h}{f \circ g^{-1}} = \{(1, \frac{1}{2}), (2, \frac{1}{2})\}$$

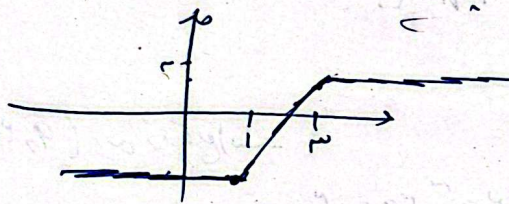
$$f(n) = \frac{n+1}{n-2} \sim \begin{cases} \text{عبارت} & \frac{a}{c} \\ \text{جانب} & 2 \end{cases}$$



$$f^{-1}(n) = \frac{n+1}{n-3} \sim \begin{cases} \text{عبارت} & \frac{a}{c} \\ \text{جانب} & 3 \end{cases}$$

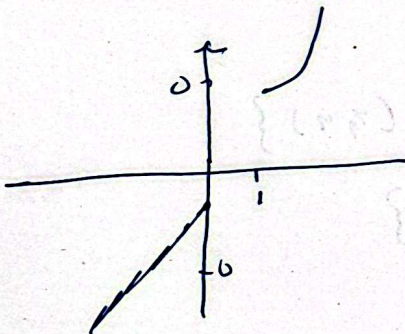


نکته تابع متصداست



در بازه $[a, b]$ متصداست
 $a \leq x \leq b$

$$f(n) = 2 \leq x \quad \frac{y+2}{2} \leq n \Rightarrow y \leq \frac{n+2}{2}$$



تابع متصداست

$$f(n) = \begin{cases} \sqrt{n} & n \geq 4 \\ \frac{1}{n} & n \leq -1 \end{cases} \quad R_y, D_y, [a, b]$$

$R_y, D_y, [a, b]$

$$\frac{n^2 + 2n^2 - n^2 - 2n^2 - n - 1}{n+2} = \frac{-n-1}{n+2} \quad y = \frac{-n-1}{n+2}$$

$$9 \leq 0 \quad f(n) = \frac{-n-1}{n+2}$$

$$\Rightarrow \frac{4n-2}{n+4} = \frac{a+b}{n+4} \Rightarrow \frac{a \leq -4}{b \leq -4}$$

$$f(n) = \frac{4-1}{-n+2} \leq 0$$

$$y_n^{\text{reg}} - \kappa \leq$$

$$\eta \leq \frac{1 \pm \sqrt{1 - \varepsilon_y}}{\varepsilon_y}$$

$$\Rightarrow y \leq \frac{1 \pm \sqrt{1 - \varepsilon_n}}{\varepsilon_n}$$

$$\Rightarrow \frac{1 - \sqrt{1 - \varepsilon_n}}{\varepsilon_n}$$

$$\Rightarrow \text{GSC}$$

سواء في حالة ε_y أو ε_n

$$\Rightarrow \frac{1 - \sqrt{1 - \varepsilon_n}}{\varepsilon_n}$$

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