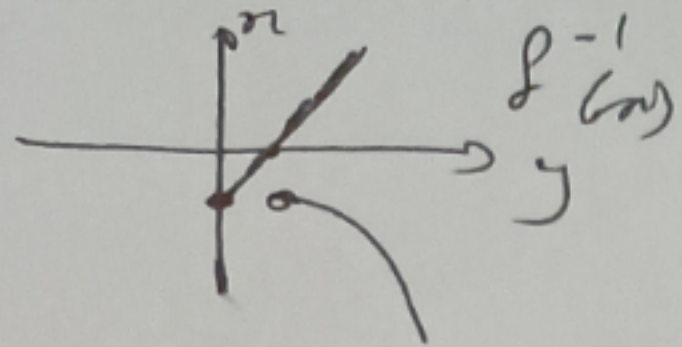


محمد شیرانی | ۱- تابع نیست زیرا با رسم شکل تابع $f(x)$ معلوم می شود که تابع نیست در نتیجه $f(x)$ هم تابع نیست



$$\left. \begin{aligned} f(n-2) = 0 &\rightarrow n = 7 \text{ و } 5 \text{ و } 3 \\ f(n) = 0 &\rightarrow n = 5 \text{ و } 3 \text{ و } 1 \end{aligned} \right\} \frac{n f(n-2)}{f(n)} > 0$$

$$D_f = (-4, -2] \cup (2, 5) \cup [7, +\infty)$$

۴- (الف) $(n+2)(n-4)(n-6)$ و $(n-2)(n-4)(n-6)$

$$n = \pm 2$$

$$\frac{n}{f(n)} = \frac{-2}{-2+2} + \frac{2}{-2+2}$$

$$D_f = (-\infty, -2) \cup (2, +\infty)$$

$$f[-n] \neq f \rightarrow [-n] \neq f$$

$$\rightarrow 1 < -n < 2 \rightarrow -2 < n < -1$$

$$\rightarrow D_f = \mathbb{R} - (-2, -1]$$

$$K=1$$

۷- رسم گراف



$$f(n-2) \neq 0 \rightarrow n \neq 0 \text{ و } 2 \rightarrow n \neq 0 \text{ و } 2 \rightarrow n \neq 0 \text{ و } 2$$

(ب) صورت < 0 است و < 0 است

$$D_f = (-\infty, -2) \cup (2, +\infty)$$

$$I \left\{ \begin{aligned} n > 0 \\ n < 0 \end{aligned} \right. \Rightarrow -n + n = 0 \Rightarrow \text{در مخرج}$$

$$II \left\{ \begin{aligned} n > 0 \\ n < 0 \end{aligned} \right. \Rightarrow \frac{1}{n(n-1)} > 0 \Rightarrow \text{در صورت}$$

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

$$I \left\{ \begin{aligned} n > 0 \\ n < 0 \end{aligned} \right. \Rightarrow \frac{1}{n(n-1)} > 0 \Rightarrow \text{در صورت}$$

$$D_f = [-1, 0) \cup (1, +\infty)$$

$$D_f: \mathbb{R}$$

$$f(n-1) = 0 \rightarrow [n-1] = 0 \rightarrow n = 1$$

$$\rightarrow D_f = [2, +\infty)$$

$$n \neq -1 \text{ و } 1 \rightarrow n \neq -1 \text{ و } 1$$

$$n \neq 0 \rightarrow n \neq 0$$

$$n \neq 1 \rightarrow n \neq 1$$

$$n \neq 2 \rightarrow n \neq 2$$

$$n \neq 3 \rightarrow n \neq 3$$

$$n \neq 4 \rightarrow n \neq 4$$

$$n \neq 5 \rightarrow n \neq 5$$

$$n \neq 6 \rightarrow n \neq 6$$

$$n \neq 7 \rightarrow n \neq 7$$

$$n \neq 8 \rightarrow n \neq 8$$

$$n \neq 9 \rightarrow n \neq 9$$

$$n \neq 10 \rightarrow n \neq 10$$

$$n \neq 11 \rightarrow n \neq 11$$

$$n \neq 12 \rightarrow n \neq 12$$

$$n \neq 13 \rightarrow n \neq 13$$

$$D_f = (-\infty, -1) \cup (1, +\infty)$$

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