

کارن جادویی را

$$\frac{n-1}{n} - \frac{n}{n-1} \rightarrow \frac{-2n+1}{n^2-n}$$

$$+ \frac{1}{n} \rightarrow \frac{1}{n} - \frac{2n+1}{n^2-n}$$

$$\frac{1}{n} - \frac{2n+1}{n^2-n} = \frac{n^2-n-2n^2-2n}{n^2-n} = \frac{-n^2-3n}{n^2-n}$$

$$(-\infty, 0) \cup (\frac{1}{n}, 1)$$

ب)

$$n+1 \neq 0$$

$$n \neq 0$$

$$n-1 \neq 0$$

$$n+2 \neq 0$$

$$D_f R = \left\{ -\frac{2}{f}, -\frac{1}{f}, \frac{1}{f}, \frac{2}{f} \right\}$$

$$\frac{2}{n-1} + \frac{1}{n+2} \neq 0 \rightarrow n \neq -\frac{2}{f}$$

الف)

$$n \geq 2$$

$$n \geq 0$$

$$n \leq -2$$

$$n \leq 0$$

ب)

$$2 - \sqrt{n-1} \geq 0 \Rightarrow n-1 \leq 4$$

$$\sqrt{n-1} \sqrt{n+1} \geq 2$$

$$n-1 \geq 2$$

$$I \Rightarrow n \leq 1$$

$$II \Rightarrow$$

عبارت درجه دو با a ضریب می باشد پس باید بین دو عبارت a و $a+1$ عبارت زیر را حل کنند

صن این است $[-2, b]$ پس از a است a و $a+1$

$$0 = 2 - 2a - 2 \rightarrow a = -\frac{1}{2}$$

$$-x^2 - \frac{1}{2}x + 2$$

$$a+b \rightarrow -\frac{1}{2} + \frac{3}{2} = 1$$

$$I: x^2 - ax + 2 > 0 \quad (x-2)(x+1) \quad \frac{1}{x-2} - \frac{2}{x+1} \quad I \rightarrow (-\infty, -1) \cup (2, +\infty)$$

$$II: x^2 - 1 \geq 0 \quad \frac{1}{x-1} - \frac{1}{x+1} \quad II \rightarrow (-\infty, -1] \cup [1, +\infty) \rightarrow I \cap II = D_f = (-\infty, -1) \cup (2, +\infty)$$

$$I \rightarrow n \geq 1 \quad II \rightarrow n-2 \geq n \Rightarrow n \leq -2 \quad \xrightarrow{I \cap II} n \geq 1$$

$$III: n < 1 \quad n+2 \geq n \Rightarrow n \geq -2 \quad \xrightarrow{III \cap II} [-2, 1)$$

$$r(a+1)(\Delta, r) \rightarrow 11a + 11^r$$

$$f(1) \xrightarrow{\text{مشتق}} u > 1$$

$$f(1.2) \xrightarrow{\text{مشتق}} u \leq 1$$

$$f(1.2) \rightarrow 11a - 11$$

$$r f(1) = f(1.2) + a \rightarrow 11a + 11 = 11a - 11 \rightarrow 10a = -11 \rightarrow a = -1.1$$

$$\begin{cases} f(n) \rightarrow r f(n) - r f(-n) = r n^r - n \times r \\ f(-n) \rightarrow r f(-n) - r f(n) = r n^r + n \times r \end{cases} \rightarrow \begin{cases} r f(n) - r f(-n) = 11 n^r - 11 n \\ r f(-n) - r f(n) = 11 n^r + 11 n \end{cases}$$

$$\begin{cases} f(1) \rightarrow r f(1) - 0 = 1 - 0 + 11^{11} - 1 \\ f(1.2) \rightarrow 0 - r f(1) = 11 + 11^{11} + 11^{11} - 1 \end{cases} \rightarrow \begin{cases} r f(1) = 11^{11} - 1 \\ -r f(1) = 11^{11} + 11 \end{cases} \xrightarrow{+} -r f(1) = 11^{11} + 11$$

$$f(1) = -11^{11} - \frac{11}{r}$$

$$f(1.1) \rightarrow f(1.1) + f(1.1) = \frac{11 + 11 + 11}{-1} \rightarrow f(1.1) = -11 \rightarrow f(1.1) = -9$$