

الف) $(n-1)(2n^2+5n-3) \neq 0 \rightarrow (n-1)(2n-1)(n+3) \neq 0$
 $D_f = \mathbb{R} - \{1, \frac{1}{2}, -3\}$

ب) $(n+1)(2n^2+7n+3) \neq 0 \rightarrow (n+1)(2n+1)(n+3) \neq 0$
 $D_f = \mathbb{R} - \{-3, -1, -\frac{1}{2}\}$

الف) $(n-1)(n^2-n+1) \neq 0$
 $D_f = \mathbb{R} - \{1\}$

ب) $\frac{n+3}{n^3-2n^2+n-1} \geq 0 \rightarrow \frac{n+3}{(n-1)(n^2-n+1)} \geq 0$
 $D_f = (-\infty, -3] \cup (1, +\infty)$

$y = \frac{2}{n^2-\delta(n-1)-2n+\delta} \rightarrow n^2-\delta(n-1)-2n+\delta \neq 0$

$\begin{cases} n-1 \geq 0 \rightarrow n \geq 1 \rightarrow n^2-\delta n+\delta-2n+\delta \neq 0 \rightarrow n^2-(\delta+2)n+2\delta \neq 0 \rightarrow (n-2)(n-\delta) \neq 0 \\ n-1 < 0 \rightarrow n < 1 \rightarrow n^2-\delta(-n+1)-2n+\delta \neq 0 \rightarrow n^2+\delta n-\delta-2n+\delta \neq 0 \rightarrow n^2+(\delta-2)n \neq 0 \end{cases}$
 $D_f = \mathbb{R} - \{2, \delta, 0, -3\}$

الف) $|2n+1| - |n+3| \neq 0 \rightarrow (2n+1)^2 - (n+3)^2 \neq 0 \rightarrow 3n^2+2n-8 \neq 0$

$3n^2+2n-8 \neq 0 \rightarrow (n-2)(3n+4) \neq 0$
 $D_f = \mathbb{R} - \{-\frac{4}{3}, 2\}$

ب) $|2n+1| - |n+3| \geq 0 \rightarrow (2n+1)^2 - (n+3)^2 \geq 0 \rightarrow 3n^2+2n-8 \geq 0$
 $\rightarrow (n-2)(3n+4) \geq 0 \rightarrow D_f = (-\infty, -\frac{4}{3}] \cup [2, +\infty)$

الف) $1 - \log_{\mu} n \geq 0 \rightarrow \log_{\mu} n \leq 1 \rightarrow \overline{n \leq \mu}$

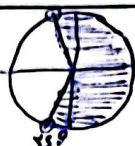
$\overline{n \leq \mu} \xrightarrow{a} \frac{a}{\mu}(0, \mu)$

ب) $\begin{cases} n > 0 \\ 1 - \log_{\frac{1}{\mu}} n \geq 0 \rightarrow \log_{\frac{1}{\mu}} n \leq 0 \rightarrow n \geq \mu \end{cases} \xrightarrow{a} D_f = (\frac{1}{\mu}, +\infty)$

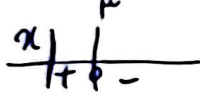
$$\begin{cases} r_{n-1} > 0 \rightarrow \boxed{x > \frac{1}{r}} \end{cases}$$

$$\begin{cases} \log_{\omega}(r_{n-1}) > 0 \rightarrow r_{n-1} > 1 \rightarrow \boxed{x > 1} \end{cases} \xrightarrow{D} (1, 3]$$

$$\begin{cases} \log_{\omega} \log_{\omega}(r_{n+1}) > 0 \rightarrow \log_{\omega} r_{n-1} < 1 \rightarrow \boxed{x < 3} \end{cases}$$

انف) $r \cos x + 1 > 0 \rightarrow \cos x > -\frac{1}{r} \rightarrow$  $\rightarrow D_f = (2k\pi - \frac{\pi}{r} - \frac{\pi}{r}, 2k\pi + \frac{\pi}{r} + \frac{\pi}{r})$

ب) $\log \frac{a-1}{a+1} > 0 \rightarrow \frac{a-1}{a+1} > 1 \rightarrow \frac{a-1-a-1}{a+1} > 0 \rightarrow \frac{-2}{a+1} > 0 \rightarrow \frac{-1}{a+1} < -1 \rightarrow x \in (-\infty, -1)$
 $\frac{a-1}{a+1} > 0 \rightarrow \frac{-1}{a+1} < -1 \rightarrow (-\infty, -1) \cup (1, +\infty)$
 $\xrightarrow{D} D_f = (-\infty, -1)$

$\frac{x}{x+1} > \frac{1}{r} \rightarrow$  $\rightarrow$ $a+r=0 \rightarrow \boxed{a=-r} \rightarrow \sqrt{-2a+b} \xrightarrow{a=r} \sqrt{-4+b}=0 \rightarrow \boxed{b=4}$

$$\frac{x}{x+1} \mid x \in \mathbb{R}$$

$$a < 0 \rightarrow \frac{1}{r} - \frac{1}{a} < 0$$

$$-\frac{1}{a} + \frac{1}{a+m^2} < 0 \rightarrow \frac{1}{a+m^2} < \frac{1}{a}$$

$$m^2 < 1 \rightarrow -1 < m < 1$$

$$\frac{x}{x+1} \mid x_1$$

$$a=0$$

$$1 - \frac{1}{1-m^2} = 0 \rightarrow -\frac{1}{1-m^2} + \frac{1}{1-m^2} = 0 \rightarrow m = \pm 1$$

$$\frac{1}{1-m^2} < 1 \rightarrow \text{افتتاح: } 1+1=2$$

دسته دامنه معبره اول و حقیقی است $\leftarrow a < 0, a=0$

$$\begin{cases} \frac{1}{r} - \frac{1}{a} > 0 \rightarrow \frac{1}{a} < \frac{1}{r} \rightarrow \frac{1}{r} < x < \frac{1}{r} \end{cases}$$

$$\xrightarrow{D} D_f = \{-2, -1, 0, 1, 2\}$$

$$[x] + [-x] + 1 \neq 0 \rightarrow [x] + [-x] \neq -1$$

$$\begin{cases} x \in \mathbb{Z} \rightarrow [x] + [-x] = 0 \checkmark \\ x \notin \mathbb{Z} \rightarrow [x] + [-x] = -1 \times \end{cases}$$

در دامنه این تابع $\frac{1}{r}$ عدد صحیح و مجرد دارد.