

① $\frac{n+\mu}{r_n^r + r_n^r - 1n + \mu}$ $r_n^r + r_n^r - 1n + \mu \mid \frac{n-1}{r_n^r + \mu n - \mu} \rightarrow 1$ معادله شیبانی ①

$(\frac{1}{r}), (-r) \leftarrow \frac{n^r + \mu n - \mu}{r} \leftarrow$ ۱۱۵

② $D_f = \mathbb{R} - \{-r, \frac{1}{r}, 1\}$ P

$\frac{n+\mu}{r_n^r + \mu n^r - 1n + \mu} \mid \frac{n+1}{r_n^r + \mu n + \mu} \rightarrow -1$

$-\frac{1}{r}, -r \leftarrow$

$D_f = \{-1, -r, -\frac{1}{r}\}$

③ $\frac{n+\mu}{n^r - r_n^r + r_{n-1}}$ $n^r - r_n^r + r_{n-1} \mid \frac{n-1}{n^r - n + 1} \rightarrow 1$ ③

$D_f = \mathbb{R} - \{1\}$

$\frac{n+\mu}{n^r - r_n^r + r_{n-1}}$ $\frac{n+\mu}{(n^r - n + 1)(n-1)} \rightarrow -r$ P

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

④ $n^r - \mu(n-1) - r_n + \mu$ $n^r - \mu n + \mu - r_n + \mu = n^r - \mu n + 1$ ④

$n^r + \mu n - \mu - r_n + \mu = n^r + r_n = 0$ ⑤

$D_f = \mathbb{R} - \{-r, 0, r, \mu\}$ P

$\frac{n(n+\mu)}{r} \rightarrow -r$

⑤ $\sqrt{[-n] - r} \rightarrow [-n] - r \geq 0 \rightarrow [-n] \geq r$ دقت!

$[n] \geq r \rightarrow D = (-\infty, -r]$ P

$\frac{\mu n^r + \mu}{[n]^r - r[n] - \mu} \rightarrow [n]^r - r[n] - \mu = 0 \rightarrow [n] = -1$ ⑥

$[n] = r \rightarrow [r, \{}$

$D_f = \mathbb{R} - \{-1, 0\} \cup (r, \{}$

این بازه‌ها ریشه‌های معادله هستند
و نباید در دامنه باشند!

⑥ $\sqrt{[n - \frac{1}{\mu}] + [n + \frac{1}{\mu}]} \rightarrow [n - \frac{1}{\mu} + 1] + [n + \frac{1}{\mu}] \geq 1$ ⑦

$r[n + \frac{1}{\mu}] \geq 1 \rightarrow [n + \frac{1}{\mu}] \geq \frac{1}{r}$ P

$n + \frac{1}{\mu} \geq \frac{1}{r}$

$n \geq \frac{1}{r} - \frac{1}{\mu}$

$$b) \sqrt{[n - \frac{1}{r}] + [\frac{1}{r} - n]} \quad n - \frac{1}{r} \in \mathbb{Z} \quad n \in \mathbb{Z} + \frac{1}{r}$$

$$D = \{n \mid n = k + \frac{1}{r}, k \in \mathbb{Z}\} \quad (10)$$

$$\frac{\cot n + 1}{\tan n + 1} \quad D = R = \{k\pi/r, k\pi + \pi/2\} \quad \tan n \neq -1 \quad \sin n \neq 0 \quad \cos n \neq 0 \quad n \neq k\pi - \frac{\pi}{2}$$

$$\sqrt{1 - r \sin^2 n} \quad 1 - r \sin^2 n \geq 0 \quad -\frac{1}{r} \leq \sin n \leq \frac{1}{r}$$

$$D = [k\pi - \frac{\pi}{4}, k\pi + \frac{\pi}{4}] \quad \text{استی بازه نباید از استیای آن کجی تر باشد}$$

$$\sqrt{1 - r \sin^2 n} \quad 1 - r \sin^2 n \geq 0 \quad \sin n \leq \frac{1}{r}$$

$$D = [k\pi + \pi/4, k\pi + 5\pi/4]$$

$$\sqrt{1 - r \cos^2 n} \quad 1 - r \cos^2 n \geq 0 \quad \cos n \leq \frac{1}{r}$$

$$D = [k\pi + \pi/4, k\pi + 5\pi/4]$$

$$\arcsin(n^r + m^r + 1)$$

$$-1 \leq n^r + m^r + 1 \leq 1 \quad [-r, -r] \cup [-1, 0]$$

$$\cos y = \sqrt{\omega - r_m} \quad \omega - r_m \geq 0 \quad m \leq 0/r$$

$$-1 \leq \sqrt{\omega - r_m} \leq 1 \quad \omega - r_m \leq 1 \quad D = [r, 0/r]$$

$$\log_r (1 - \log_r^n)$$

$$1 - \log_r^n > 0 \quad \log_r^n < 1 \quad n < r$$

$$(0, r) \quad \log_r^n < 1 \rightarrow n > \frac{1}{r} \rightarrow Df = (\frac{1}{r}, +\infty)$$

منابعین وراثت ہیں حسب نامدارہ بعض مرکب

$$\log_r (\log_r^n)$$

$$1 - \log_{\frac{1}{r}}^n > 0 \quad \log_{\frac{1}{r}}^n < 1$$

$$n < \frac{1}{r}$$

$$(0, \frac{1}{r})$$

1/8

$$\sqrt{r^{\sum m - n^2}}$$

$$r^{\sum m - n^2} > 1$$

$$r^{\sum m - n^2} > 1$$

$$n^2 - \sum m + r^2 > 0$$

$$(n - r)(n - 1)$$

$$L_0 r \quad L_0 1$$

$$\frac{1}{r} \quad \frac{1}{r}$$

$$D = [1, r]$$

$$b) \left(\frac{r_m + a}{r_m + \varepsilon} \right) !$$

$$\frac{r_m + a}{r_m + \varepsilon} \in w$$

$$n = \frac{\sum w + a}{rw - r}$$

$$D = \{ n \mid n = \frac{a - \sum k}{rk - r}, k \in w \}$$

$$9 - b) y = \log_r (1 - \log_r^n) \rightarrow \log_{\frac{1}{r}}^n \rightarrow n > 0$$

$$\rightarrow 1 - \log_{\frac{1}{r}}^n > 0 \rightarrow \log_{\frac{1}{r}}^n < 1 \rightarrow n > \frac{1}{r}$$

$$Df = (\frac{1}{r}, +\infty)$$

الف - ۴) $[-n] - 2 \geq 0 \rightarrow [-n] \geq 2 \rightarrow -n \geq 2 \rightarrow n \leq -2 \rightarrow D_f = (-\infty, -2]$

ب - ۴) $[n]^2 - 2[n] - 3 = 0 \xrightarrow{[n]=t} t^2 - 2t - 3 = 0 \rightarrow (t-3)(t+1) = 0$

$t=3 \rightarrow [n]=3 \rightarrow n \in [3, 4)$

$t=-1 \rightarrow [n]=-1 \rightarrow n \in [-1, 0)$

$\rightarrow D_f = (-\infty, -1) \cup [3, 4) \cup [4, +\infty)$

$\stackrel{1}{\cup} \mathbb{R} - \{ [3, 4) \cup [-1, 0) \}$

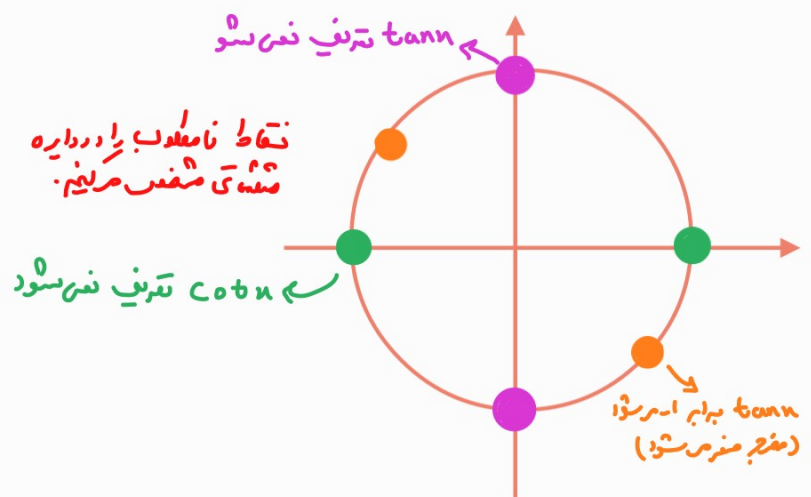
۴- الف) $y = \frac{\cot x + 1}{\tan x + 1}$

$x \neq k\pi + \frac{\pi}{2}$

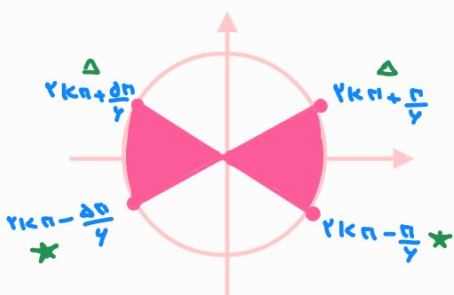
$x \neq k\pi + \frac{\pi}{4} \cup x \neq k\pi$

$\rightarrow x \neq \frac{k\pi}{4}$

$\rightarrow D_f = \mathbb{R} - \left\{ \frac{k\pi}{4}, k\pi + \frac{\pi}{2} \right\}$



ب - ۴) $1 - 4 \sin^2 x \geq 0 \rightarrow 4 \sin^2 x \leq 1 \rightarrow \sin^2 x \leq \frac{1}{4} \rightarrow -\frac{1}{2} \leq \sin x \leq \frac{1}{2}$



$\rightarrow D_f = \left[k\pi - \frac{\pi}{4}, k\pi + \frac{\pi}{4} \right]$