

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

ب) $\frac{(n+3)}{(n+3)(2n+1)(n+1)}$ $D_f = \mathbb{R} - \{-3, -1, -\frac{1}{2}\}$

الف) $\frac{(n+3)}{(n-1)(n^2-n+1)}$ $D_f = \mathbb{R} - \{1\}$

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

$n \geq 1 \Rightarrow n^2 - \sqrt{n+1} \neq 0 \Rightarrow n \neq \{2, 5\}$

$n \leq 1 \Rightarrow n^2 + 2n \neq 0 \Rightarrow n \neq \{0, -3\}$

$\Rightarrow D_f = \mathbb{R} - \{-3, 0, 2, 5\}$

الف) $|2n+1| \cdot |n+3| \neq 0 \Rightarrow (2n+1)^2 \neq (n+3)^2 \Rightarrow n \neq \{-\frac{4}{3}, 2\}$

$D_f = \mathbb{R} - \{-\frac{4}{3}, 2\}$

ب) $|2n+1| - |n+3| \geq 0 \Rightarrow (n-2)(2n+4) \geq 0 \Rightarrow$

$D_f = (-\infty, -\frac{2}{3}] \cup [2, +\infty)$

الف) $1 - \log_r^n > 0 \Rightarrow 1 > \log_r^n \Rightarrow \frac{n}{r} > 0 \Rightarrow D_f = (0, r)$

ب) $n > 0 \Rightarrow 1 - \log_{\frac{1}{r}}^n > 0 \Rightarrow 1 > \log_{\frac{1}{r}}^n \Rightarrow \frac{1}{r} < n \Rightarrow D_f = (\frac{1}{r}, +\infty)$

$$\log_{e.0}^{r_{m-1}} \geq 0 \Rightarrow \log_{\Delta}^{r_{m-1}} \leq 1 \quad r_{m-1} \leq \Delta \quad n \leq r]$$

$$\log_{\Delta}^{r_{m-1}} > 0 \quad r_{m-1} > 1 \quad n > 1 \quad D_f = (1, r]$$

الف) $r \cos n + 1 > 0 \quad \cos n > -\frac{1}{r}$

$$D_f = R - \left[r \sqrt{r} + \frac{r \sqrt{r}}{r}, r \sqrt{r} + \frac{r \sqrt{r}}{r} \right]$$



ب) $\log \frac{n-1}{n+1} \geq 0 \quad \frac{n-1}{n+1} > 0 \quad \frac{-1}{1+1} \quad (-\infty, -1) \cup (1, \infty)$

$$\frac{n-1}{n+1} \geq 1 \quad \frac{-r}{n+1} \geq 0 \quad \frac{-1}{1+1} \quad (-\infty, -1) \Rightarrow D_f = (-\infty, -1)$$

$$a + r = 0 \quad a = -r \Rightarrow \sqrt{-rn + b}$$

$$\sqrt{-rn + b} \quad -rn + b \geq 0 \quad r \geq n$$

$$-rx(r) + b = 0$$

$$\boxed{b = r}$$

$\Delta \leq 0 \Rightarrow r - r(r - m^r) \leq 0 \quad r - 1 + r m^r \leq 0$

$$r m^r - r \leq 0 \quad m^r - 1 \leq 0 \quad [-1, +1] = m \quad |1 - (-1)| = r]$$

$$[m] + [-n] + 1 \neq 0 \Rightarrow \cancel{D} = \mathbb{Z}$$

$$r - n^r \geq 0$$

$$-r, -1, 0, 1, r$$

$$\cancel{D} = [-r, r]$$

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