

حسن حاجي حبي

١٣، ١٧، ١٨

١)  $2n^2 - 2n - 1 \neq 0 \Rightarrow (2n-1)(n-1) \neq 0 \Rightarrow D_f = \mathbb{R} - \{\frac{1}{2}, -1\}$  ✓

٢)  $2n^2 + 9n - 1 \neq 0 \Rightarrow (n+1)(2n-1) \neq 0 \Rightarrow D_f = \mathbb{R} - \{-1, -\frac{1}{2}\}$  ✓

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

٤)  $\frac{n+1}{n^2 - 2n + 1} > 0 \Rightarrow \frac{n+1}{(n-1)^2} > 0 \Rightarrow D_f = (-\infty, -1] \cup (1, +\infty)$  ✓

٥)  $n < 1 \Rightarrow n^2 - 2n + 1 > 0 \Rightarrow (n-1)^2 > 0$   
 $n > 1 \Rightarrow n^2 - 2n + 1 > 0 \Rightarrow (n-1)^2 > 0$   
 $n = 1 \Rightarrow \Delta < 0 \Rightarrow \text{no solution}$   
 $\Rightarrow D_f = \mathbb{R} - \{-1, 0, 1, 0\}$  ✓

٦)  $|2n+1| - |n+1| \neq 0 \Rightarrow 2n+1 \neq n+1 \Rightarrow n \neq 0 \Rightarrow D_f = \mathbb{R} - \{0\}$  ✓

٧)  $|2n+1| - |n+1| > 0 \Rightarrow 2n+1 > n+1 \Rightarrow n > 0 \Rightarrow D_f = (0, +\infty)$  ✓

٨)  $n > 0 \Rightarrow 1 - \log_c n > 0 \Rightarrow 1 > \log_c n \Rightarrow n < c \Rightarrow D_f = (0, c)$  ✓

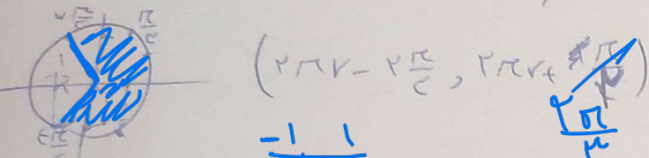
٩)  $n > 0 \Rightarrow 1 - \log_{\frac{1}{c}} n > 0 \Rightarrow 1 > \log_{\frac{1}{c}} n \Rightarrow n < \frac{1}{c} \Rightarrow D_f = (0, \frac{1}{c})$  ✓

$$n > 0 \quad 2^{n-1} > 0 \Rightarrow n > \frac{1}{2} \checkmark \quad \log_{\Delta} 2^{n-1} > 0 \Rightarrow 2^{n-1} > \Delta \Rightarrow n > \frac{1}{2} \checkmark$$

$$D_f = \left( \frac{1}{2}, +\infty \right) \cap (1, 3] \quad \log_{\Delta} 2^{n-1} \leq 1 \rightarrow n \leq 3$$

(0, 1.5)

الف)  $2(\cos n + 1) > 0 \Rightarrow 2\cos n > -1 \Rightarrow \cos n > -\frac{1}{2} \checkmark$



ب)  $\frac{n-1}{n+1} > 0 \quad \log_{\Delta} \frac{n-1}{n+1} > 0 \quad \frac{n-1}{n+1} > 1 \quad D_f = \left( \frac{1}{2}, +\infty \right) \cap (1, 3]$

(1)

اختلاف = 2

$$[0, +\infty) \quad 2 - m^2 = 0 \Rightarrow m = \pm \sqrt{2}$$

$$f - f(2 - m^2) = f - 1 + f m^2 \leq 0 \Rightarrow f m^2 \leq 1 \Rightarrow m^2 \leq \frac{1}{f} \Rightarrow -\frac{1}{\sqrt{f}} \leq m \leq \frac{1}{\sqrt{f}}$$

(1, 5)

$$f - n^2 \geq 0 \Rightarrow (f - n)(f + n) \geq 0$$

$$\frac{1}{f} + \frac{1}{f} = \frac{2}{f} \Rightarrow I$$

$$\rightarrow -\frac{1}{\sqrt{f}} \leq n \leq \frac{1}{\sqrt{f}}$$

مجموعة

$$\{-1, -1\}$$

$$\Pi \Rightarrow [n] + [-n] + 1 \Rightarrow D_f = \mathbb{Z} \Rightarrow I \cap \Pi \Rightarrow \text{مجموعة}$$

(0, 1.5)