

۱۹/۸ آفرین!

الف) $\frac{n+4}{n^2-2n+1}$ $\frac{n+4}{(n-1)^2}$ ب) $\frac{n+3}{n^2-n-2}$ $\frac{n+3}{(n-2)(n+1)}$	$\frac{n+4}{(n-1)^2} \Rightarrow \frac{n+4}{(n-1)(n-1)}$ $\frac{n+3}{(n-2)(n+1)} \Rightarrow \frac{n+3}{(n-2)(n+1)}$	$D_f = \mathbb{R} - \{1, 2\}$ $D_f = \mathbb{R} - \{-1, 2\}$	$\{1, 2\}$ $\{-1, 2\}$
الف) $y = \frac{n+1}{n-\sqrt{3-2n}}$ ب) $y = \frac{n+2}{n-\sqrt{4n-2}}$	$\sqrt{3-2n} > 0 \Rightarrow 3-2n > 0 \Rightarrow n < \frac{3}{2}$ $\sqrt{4n-2} > 0 \Rightarrow 4n-2 > 0 \Rightarrow n > \frac{1}{2}$	$D_f = \left(\frac{1}{2}, \frac{3}{2}\right) - \{1\}$ $D_f = \left(\frac{1}{2}, \frac{3}{2}\right) - \{1, 2\}$	$\{1\}$ $\{1, 2\}$
الف) $y = \frac{\sin n}{2\cos n - 1}$ ب) $y = \frac{\cos n + 1}{2\sin n + 1}$ ج) $y = \frac{\tan n + 2}{\cot n - 1}$ د) $y = \frac{\sin n + 1}{2\sin n - 1}$	$2\cos n - 1 \neq 0 \Rightarrow \cos n \neq \frac{1}{2}$ $2\sin n + 1 \neq 0 \Rightarrow \sin n \neq -\frac{1}{2}$ $\cot n - 1 \neq 0 \Rightarrow \cot n \neq 1 \Rightarrow n \neq \frac{\pi}{4} + k\pi$ $2\sin n - 1 \neq 0 \Rightarrow \sin n \neq \frac{1}{2} \Rightarrow n \neq \frac{\pi}{6} + 2k\pi, \frac{5\pi}{6} + 2k\pi$	$D_f = \mathbb{R} - \left\{2k\pi + \frac{\pi}{3}, 2k\pi + \frac{2\pi}{3}\right\}$ $D_f = \mathbb{R} - \left\{2k\pi + \frac{3\pi}{2}, 2k\pi + \frac{5\pi}{2}\right\}$ $D_f = \mathbb{R} - \left\{k\pi, k\pi + \frac{\pi}{4}, k\pi + \frac{3\pi}{4}, k\pi + \frac{5\pi}{4}, k\pi + \frac{7\pi}{4}\right\}$ $D_f = \mathbb{R} - \left\{k\pi + \frac{\pi}{6}, k\pi + \frac{5\pi}{6}, k\pi + \frac{7\pi}{6}, k\pi + \frac{11\pi}{6}\right\}$	$\{2k\pi + \frac{\pi}{3}, 2k\pi + \frac{2\pi}{3}\}$ $\{2k\pi + \frac{3\pi}{2}, 2k\pi + \frac{5\pi}{2}\}$ $\{k\pi, k\pi + \frac{\pi}{4}, k\pi + \frac{3\pi}{4}, k\pi + \frac{5\pi}{4}, k\pi + \frac{7\pi}{4}\}$ $\{k\pi + \frac{\pi}{6}, k\pi + \frac{5\pi}{6}, k\pi + \frac{7\pi}{6}, k\pi + \frac{11\pi}{6}\}$
الف) $m^2 - 2m + 4 > 0$ ب) $m^2 - 4m + 4 < 0$ ج) $m^2 + 4m + 4 \geq 0$ د) $m^2 - 7m + 6 \leq 0$	$(m-1)(m-2) > 0 \Rightarrow m < 1 \text{ or } m > 2$ $(m-2)^2 < 0 \Rightarrow m = 2$ $(m+2)^2 \geq 0 \Rightarrow m \in \mathbb{R}$ $(m-3)(m-2) \leq 0 \Rightarrow 2 \leq m \leq 3$	$D_f = (-\infty, 1) \cup (2, +\infty)$ $D_f = \{2\}$ $D_f = (-\infty, +\infty)$ $D_f = [2, 3]$	$\{2\}$ $\{2\}$ $\{2\}$ $\{2, 3\}$
الف) $\frac{m^2-2m+2}{m-2} < 0$ ب) $\frac{m^2-1}{m^2-4m+4} \geq 0$	$\frac{(m-1)(m-2)}{m-2} < 0 \Rightarrow m-1 < 0 \Rightarrow m < 1$ $\frac{(m-1)(m+1)}{(m-2)^2} \geq 0 \Rightarrow (m-1)(m+1) \geq 0 \Rightarrow m < -1 \text{ or } m > 1$	$D_f = (-\infty, 1) \cup [2, +\infty)$ $D_f = (-\infty, -1] \cup [1, +\infty)$	$\{1\}$ $\{-1, 1\}$

