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Date	No	كلايف	آجلان شيخان
الف	$2-x \geq 0$ $+2 \geq x$	$4-\sqrt{2-x} \geq 0$ $\sqrt{2-x} \leq 4$ $2-x \leq 14$ $-14 \leq x$	$-14 \leq x \leq 2$ $D_f = [-14, 2]$

ب) $x-2 \geq 0$ $x \geq 2$	$3-\sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$ $11 \geq x$	$D_f = [2, 11]$
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الف) $4-2x^2 \geq 0$ $2-x^2 \geq 0$ $2 \geq x^2$	$-\sqrt{2} \leq x \leq \sqrt{2}$	$D_f = [-\sqrt{2}, \sqrt{2}]$
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ب) $3 x \geq 9$ $ x \geq 3$	$x \leq -3$ $x \geq 3$	$D_f = (-\infty, -3] \cup [3, \infty)$
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الف) $ x -3 \neq 0$ $ x \neq 3$	$D_f = \mathbb{R} - \{-3, 3\}$ $D_f = (-\infty, -3) \cup (-3, 3) \cup (3, \infty)$	
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ب) $x \geq 0$	$\sqrt{x} \neq 3$ $x \neq 9$	$D_f = [0, 9) \cup (9, \infty]$
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الف) $3- x \geq 0$ $ x +2 \neq 0$	$3 \geq x $ $ x \neq -2$	$-3 \leq x \leq 3$ $D_f = [-3, 3]$
ب) $4-x^2 \geq 0$ $ x -1 \neq 0$	$4 \geq x^2$ $ x \neq 1$	$-2 \leq x \leq 2$ $x \neq -1, 1$ $D_f = [-2, -1) \cup (-1, 1) \cup (1, 2]$

الف) $x + |x| > 0$ $0 < x$ $+ \sqrt{-x}$ $D_f = (0, +\infty)$ 2

ب) $\frac{1}{\sqrt{x|x|}}$ $x|x| > 0$ $0 < x$ $-x$ $+ \sqrt{}$ $D_f = (0, +\infty)$

الف) $2 - [x] \geq 0$ $2 \geq [x]$ $D_f = (-\infty, 2)$ 4

ب) $2 - [x] > 0$ $2 > [x]$ $D_f = (-\infty, 2)$

الف) $x[x] \neq 0$ $x \neq 0$ $[x] \neq 0$ $0 \leq x < 1$ $D_f = (-\infty, 0) \cup [1, +\infty)$ 5

ب) $-x[x] > 0$ $x[x] < 0$ $-x = +$ $x = -$ $D_f = \emptyset$
 $+x = +$ $x = +$ $D_f = \emptyset$
 محال
 لعدم
 توافق

الف) $[x - \frac{1}{\sqrt{x}}] - [x + \frac{2}{\sqrt{x}}] \geq 0$ $[x + \frac{2}{\sqrt{x}}] + [x + \frac{2}{\sqrt{x}} - 1] \geq 0$ 7

$2[x + \frac{2}{\sqrt{x}}] \geq 1$ $x + \frac{2}{\sqrt{x}} \geq \frac{1}{2}$ $x \geq \frac{1}{\sqrt{x}} \rightarrow D_f = [\frac{1}{\sqrt{x}}, +\infty)$

ب) $\sqrt{[x - \frac{1}{\sqrt{x}}] + [-x + \frac{1}{\sqrt{x}}]} \rightarrow \sqrt{[x - \frac{1}{\sqrt{x}}] + [-(x - \frac{1}{\sqrt{x}})]} \rightarrow x - \frac{1}{\sqrt{x}} \in \mathbb{Z} \rightarrow x \in \mathbb{Z} + \frac{1}{\sqrt{x}}$

$\rightarrow D_f = \{x \mid x = K + \frac{1}{\sqrt{x}}, K \in \mathbb{Z}\}$

الف) $2 \sin^2 x - 1 \neq 0 \rightarrow 2 \sin^2 x \neq 1 \rightarrow \sin^2 x \neq \frac{1}{2} \rightarrow \sin x \neq \pm \frac{\sqrt{2}}{2}$ 9
 $\rightarrow D_f = \mathbb{R} - \{ \frac{K\pi}{4} + \frac{\pi}{4}, \frac{K\pi}{4} + \frac{3\pi}{4} \}$

ب) $\cot x = \frac{\cos x}{\sin x} \rightarrow \sin x \neq 0$ $\left. \begin{array}{l} \tan x = \frac{\sin x}{\cos x} \rightarrow \cos x \neq 0 \end{array} \right\} D_f = \mathbb{R} - \{ \frac{K\pi}{4}, K\pi - \frac{\pi}{4} \}$

$\tan x \neq -1$

Date

No

الف) $2\sin x - 1 \geq 0 \rightarrow \sin x \geq \frac{1}{2} \rightarrow D_f = \left[2K\pi + \frac{\pi}{6}, 2K\pi + \frac{5\pi}{6} \right]$ ١٠

ب) $1 - 2\cos x \geq 0 \rightarrow \cos x \leq \frac{1}{2} \rightarrow D_f = \left[2K\pi + \frac{\pi}{3}, 2K\pi + \frac{5\pi}{3} \right]$