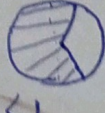


الف) $y = \sqrt{4 - \sqrt{2-x}}$ $2-x \geq 0$ $2 \geq x$ $4 - \sqrt{2-x} \geq 0$ $4 \geq \sqrt{2-x}$ $16 \geq 2-x$ $x \geq -14$ $D = [-14, 2]$	ب) $y = \sqrt{3 - \sqrt{x-2}}$ $x-2 \geq 0$ $x \geq 2$ $3 - \sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$ $x \leq 11$ $D = [2, 11]$	1
الف) $y = \sqrt{4 - 2x^2}$ $4 - 2x^2 \geq 0$ $2x^2 \leq 4$ $x^2 \leq 2$ $-\sqrt{2} \leq x \leq \sqrt{2}$ $D = [-\sqrt{2}, \sqrt{2}]$	ب) $y = \sqrt{3 x -9}$ $3 x -9 \geq 0$ $3 x \geq 9$ $x \geq 3$ $x \geq 3 \cup x \leq -3$ $D = (-\infty, -3] \cup [3, +\infty)$	2
الف) $y = \sqrt{\frac{ x +1}{ x -3}}$ $x -3 \neq 0$ $x \neq 3$ $x \neq \pm 3$ $D = \mathbb{R} - \{-3, +3\}$	ب) $y = \sqrt{\frac{\sqrt{x}+1}{\sqrt{x}-3}}$ $\sqrt{x}-3 \neq 0$ $\sqrt{x} \neq 3$ $x \neq 9$ $x \geq 0$ $D = [0, +\infty) - \{9\}$	3
الف) $y = \frac{\sqrt{3- x }}{ x +2}$ $3- x \geq 0$ $3 \geq x$ $-3 \leq x \leq 3$ $D = [-3, 3]$	ب) $y = \frac{\sqrt{4-x^2}}{ x -1}$ $x -1 \neq 0$ $x \neq 1$ $x \neq \pm 1$ $4-x^2 \geq 0$ $4 \geq x^2$ $-2 \leq x \leq 2$ $D = [-2, 2] - \{1, -1\} = [-2, -1) \cup (-1, 1) \cup (1, 2]$	4
الف) $y = \frac{x+1}{\sqrt{x+ x }}$ $x+ x \geq 0$ $\oplus \checkmark$ $x > 0$ $\ominus \times$ $\ominus \times$ $D = (0, +\infty)$	ب) $y = \frac{1}{\sqrt{x x }}$ $x x > 0$ $\oplus \checkmark$ $x > 0$ $\ominus \times$ $\ominus \times$ $D = (0, +\infty)$	5

$الف) y = \sqrt{1 - [x]}$ $1 - [x] \geq 0$ $1 \geq [x]$ $D: (-\infty, 1)$	$ب) y = \frac{1}{\sqrt{1 - [x]}}$ $1 - [x] > 0$ $1 > [x]$ $D: (-\infty, 1)$	٦
$الف) y = \frac{1}{x[x]}$ $x[x] \neq 0$ $[x] \neq 0$ $D = \mathbb{R} - [0, 1)$	$ب) y = \frac{1}{\sqrt{-x[x]}}$ $-x[x] > 0$ $x[x] \geq 0 \rightarrow \text{ممنوع}$ $-x[x] < 0 \Rightarrow D = \emptyset$	٧
$الف) y = \sqrt{\left[x - \frac{1}{p}\right] + \left[x + \frac{p}{p}\right]}$ $\left[x - \frac{1}{p} + 1\right] + \left[x + \frac{p}{p}\right] \geq 1$ $1 \left[x + \frac{p}{p}\right] \geq 1 \quad \left[x + \frac{p}{p}\right] \geq \frac{1}{p}$ $\left[x + \frac{p}{p}\right] \geq 1 \quad x + \frac{p}{p} \geq 1$ $x \geq \frac{1}{p} \Rightarrow D = \left[\frac{1}{p}, +\infty\right)$	$ب) y = \sqrt{\left[x - \frac{1}{p}\right] + \left[-\left(x - \frac{1}{p}\right)\right]}$ $[a] + [-a] \rightarrow a \in \mathbb{Z} \Rightarrow 0 \quad \checkmark$ $[a] + [-a] \rightarrow a \notin \mathbb{Z} \Rightarrow -1 \quad \text{ممنوع}$ $\left[x - \frac{1}{p}\right] + \left[-\left(x - \frac{1}{p}\right)\right] \geq 0$ $x - \frac{1}{p} \in \mathbb{Z} \Rightarrow x \in \mathbb{Z} + \frac{1}{p}$ $D = \left\{x \mid x = k + \frac{1}{p}, k \in \mathbb{Z}\right\}$	٨
$الف) y = \frac{1}{\sqrt{\sin^2 x - 1}}$ $\sqrt{\sin^2 x - 1} \neq 0 \quad \sqrt{\sin^2 x} \neq 1$ $\sin^2 x \neq \frac{1}{4} \quad \sin x \neq \pm \frac{\sqrt{1}}{2}$ $D = \mathbb{R} - \left\{\frac{k\pi}{4} + \frac{\pi}{4}\right\}$	$ب) y = \frac{\cos x + x + 1}{\tan x + 1}$ $\tan x + 1 \neq 0 \quad \tan x \neq -1$ $k\pi - \frac{\pi}{4}$ $D = \mathbb{R} - \left\{\frac{k\pi}{4}, k\pi - \frac{\pi}{4}\right\}$	٩
$الف) y = \sqrt{1 - \sin x}$ $1 - \sin x \geq 0 \quad \sin x \leq \frac{1}{4}$ $D = \left[2k\pi + \frac{\pi}{4}, 2k\pi + \frac{5\pi}{4}\right]$ 	$ب) y = \sqrt{1 - \cos x}$ $1 - \cos x \geq 0 \quad \cos x \leq 1$ $\cos x \leq \frac{1}{4}$ $D = \left[2k\pi + \frac{\pi}{3}, 2k\pi + \frac{5\pi}{3}\right]$ 	١٠