

الف) $y = \sqrt{2-x} \sqrt{x}$ $2-x \geq 0$ $x \geq 0$ $D_f = \{x | x \in \mathbb{R}, -1 \leq x \leq 2\}$

$2-x \geq 0$ $x \geq 0$ $2-x \geq 0$ $x \geq 0$ $2-x \geq 0$ $x \geq 0$

ب) $y = \sqrt{2-x} \sqrt{x-2}$ $x-2 \geq 0$ $x \geq 2$ $D_f = \{x | x \in \mathbb{R}, 2 \leq x \leq 11\}$

$2-x \geq 0$ $x \geq 2$ $2-x \geq 0$ $x \geq 2$ $2-x \geq 0$ $x \geq 2$

الف) $y = \sqrt{2-x^2}$ $2-x^2 \geq 0$ $x^2 \leq 2$ $D_f = \{x | x \in \mathbb{R}, -\sqrt{2} \leq x \leq \sqrt{2}\}$

$2-x^2 \geq 0$ $x^2 \leq 2$ $2-x^2 \geq 0$ $x^2 \leq 2$ $2-x^2 \geq 0$ $x^2 \leq 2$

ب) $y = \sqrt{2|x|-9}$ $2|x|-9 \geq 0$ $|x| \geq 4.5$ $D_f = \mathbb{R} - (-3, 3)$

$2|x|-9 \geq 0$ $|x| \geq 4.5$ $2|x|-9 \geq 0$ $|x| \geq 4.5$ $2|x|-9 \geq 0$ $|x| \geq 4.5$

الف) $y = \sqrt[3]{\frac{|x|+1}{|x|-3}}$ $|x|-3 \neq 0$ $|x| \neq 3$ $D_f = \mathbb{R} - \{\pm 3\}$

$|x|-3 \neq 0$ $|x| \neq 3$ $|x|-3 \neq 0$ $|x| \neq 3$ $|x|-3 \neq 0$ $|x| \neq 3$

ب) $y = \sqrt[3]{\frac{\sqrt{x}+1}{\sqrt{x}-3}}$ $x \geq 0$ $D_f = [0, +\infty) - \{9\}$

$x \geq 0$ $D_f = [0, +\infty) - \{9\}$ $x \geq 0$ $D_f = [0, +\infty) - \{9\}$ $x \geq 0$ $D_f = [0, +\infty) - \{9\}$

الف) $y = \frac{\sqrt{3-|x|}}{|x|+3}$ $|x|+3 \neq 0$ $|x| \neq -3$ $D_f = [-3, 3]$

$|x|+3 \neq 0$ $|x| \neq -3$ $|x|+3 \neq 0$ $|x| \neq -3$ $|x|+3 \neq 0$ $|x| \neq -3$

ب) $y = \frac{\sqrt{3-x^2}}{|x|-1}$ $\sqrt{3-x^2} \geq 0$ $|x| \leq \sqrt{3}$ $|x|-1 \neq 0$ $|x| \neq 1$ $x \neq \pm 1$

$\sqrt{3-x^2} \geq 0$ $|x| \leq \sqrt{3}$ $|x|-1 \neq 0$ $|x| \neq 1$ $x \neq \pm 1$ $\sqrt{3-x^2} \geq 0$ $|x| \leq \sqrt{3}$ $|x|-1 \neq 0$ $|x| \neq 1$ $x \neq \pm 1$

$\frac{-2}{-1} + \frac{2}{1} = 0$ $D_f = [-2, 2] - \{\pm 1\}$

الف) $y = \frac{x+1}{\sqrt{x+|x|}}$ $x+|x| > 0$ $D_f = \mathbb{R}^+$

$x+|x| > 0$ $D_f = \mathbb{R}^+$ $x+|x| > 0$ $D_f = \mathbb{R}^+$ $x+|x| > 0$ $D_f = \mathbb{R}^+$

ب) $y = \frac{1}{\sqrt{x|x|}}$ $x|x| > 0$ $D_f = \mathbb{R}^+$

$x|x| > 0$ $D_f = \mathbb{R}^+$ $x|x| > 0$ $D_f = \mathbb{R}^+$ $x|x| > 0$ $D_f = \mathbb{R}^+$

الف) $y = \sqrt{2-[x]}$ $2-[x] \geq 0$ $[x] \leq 2$ $D_f = (-\infty, 3)$

$2-[x] \geq 0$ $[x] \leq 2$ $2-[x] \geq 0$ $[x] \leq 2$ $2-[x] \geq 0$ $[x] \leq 2$

ب) $y = \frac{1}{\sqrt{2-[x]}}$ $2-[x] > 0$ $[x] < 2$ $D_f = (-\infty, 2)$

$2-[x] > 0$ $[x] < 2$ $2-[x] > 0$ $[x] < 2$ $2-[x] > 0$ $[x] < 2$

الف) $y = \frac{1}{x[x]}$ $x[x] \neq 0$ $D_f = \mathbb{R} - [0, 1)$

$x[x] \neq 0$ $D_f = \mathbb{R} - [0, 1)$ $x[x] \neq 0$ $D_f = \mathbb{R} - [0, 1)$ $x[x] \neq 0$ $D_f = \mathbb{R} - [0, 1)$

ب) $y = \frac{1}{\sqrt{-x[x]}}$ $-x[x] > 0$ $D_f = \emptyset$

$-x[x] > 0$ $D_f = \emptyset$ $-x[x] > 0$ $D_f = \emptyset$ $-x[x] > 0$ $D_f = \emptyset$

$$x > \frac{1}{r}$$

$$D_f = \left[\frac{1}{r}, +\infty \right)$$

سبيل النور

Subject:

Year: Month: Day:

page: ()

$$الف) y = \sqrt{\left[x - \frac{1}{r}\right] + \left[x + \frac{1}{r}\right]} \quad \left[x - \frac{1}{r}\right] + \left[x + \frac{1}{r}\right] \geq 0 \quad \left[x - \frac{1}{r}\right] + \left[x + 1 - \frac{1}{r}\right]$$

$$\left[x - \frac{1}{r}\right] + \left[x - \frac{1}{r}\right] \geq -1 \quad r\left[x - \frac{1}{r}\right] \geq -1 \quad \left[x - \frac{1}{r}\right] \geq -\frac{1}{r} \quad x - \frac{1}{r} \geq 0 \quad x \geq \frac{1}{r}$$

$$ب) y = \sqrt{\left[x - \frac{1}{r}\right] + \left[-x + \frac{1}{r}\right]} = \sqrt{\left[x - \frac{1}{r}\right] + \left[-\left(x - \frac{1}{r}\right)\right]} \quad D_f = \left\{x \mid x = k + \frac{1}{r}, k \in \mathbb{Z}\right\}$$

5

$$الف) y = \frac{1}{r \sin^2 x - 1} \quad r \sin^2 x - 1 \neq 0 \quad D_f = \mathbb{R} - \left\{k\pi + \frac{\pi}{2}\right\}$$

$$r \sin^2 x \neq 1$$

$$ب) y = \frac{\cot x + 1}{\tan x + 1} \quad \tan x + 1 \neq 0 \quad \cot x \quad x \neq k\pi$$

$$\tan x \neq -1 \quad \frac{\sin x}{\cos x} \neq -1 \quad x \neq k\pi + \frac{3\pi}{4}, k\pi + \frac{\pi}{4}$$

$$\frac{\sin x}{\cos x} \quad x \neq k\pi + \frac{\pi}{4} \quad D_f = \mathbb{R} - \left\{k\pi, k\pi + \frac{3\pi}{4}, k\pi + \frac{\pi}{4}\right\}$$

$$الف) y = \sqrt{r \sin x - 1} \quad r \sin x - 1 \geq 0 \quad \frac{r \sin x}{r} \geq \frac{1}{r} \quad \sin x \geq \frac{1}{r}$$

$$D_f = \left[k\pi + \frac{\pi}{6}, k\pi + \frac{5\pi}{6}\right]$$

$$ب) y = \sqrt{1 - r \cos x} \quad 1 - r \cos x \geq 0 \quad \frac{1}{r} \geq \frac{r \cos x}{r} \quad \frac{1}{r} \geq \cos x$$

$$D_f = \left[k\pi + \frac{\pi}{3}, k\pi + \frac{5\pi}{3}\right]$$

25

30