

الف) $y = \sqrt{2-n}$ $\begin{cases} \sqrt{2-n} \geq 0 & 2-n \geq 0 & n \leq 2 \\ 2-\sqrt{2-n} \geq 0 & \sqrt{2-n} \leq 2 & 2-n \leq 4 & n \geq -14 \end{cases}$ $D_f: [-14, 2]$ ۱۷۸۵ (۲) ✓

ب) $y = \sqrt{2-\sqrt{n-2}}$ $\begin{cases} \sqrt{n-2} \geq 0 & n-2 \geq 0 & n \geq 2 \\ 2-\sqrt{n-2} \geq 0 & \sqrt{n-2} \leq 2 & n-2 \leq 4 & n \leq 6 \end{cases}$ $D_f: [2, 6]$

الف) $y = \sqrt{2-2n^2} \rightarrow 2-2n^2 \geq 0 \quad 2n^2 \leq 2 \quad n^2 \leq 1 \quad -1 \leq n \leq 1$ $D_f: [-1, 1]$ ۱۱۵ (۲) ✓

ب) $y = \sqrt{3|n|-9} \rightarrow 3|n|-9 \geq 0 \quad 3|n| \geq 9 \quad |n| \geq 3 \quad n \geq 3 \quad D_f: (-\infty, -3] \cup [3, \infty)$
 $n \leq -3$

الف) $y = \sqrt{\frac{|n|+1}{|n|-3}} = |n| \neq 3 \Rightarrow n \neq \pm 3 \Rightarrow \mathbb{R} - \{\pm 3\}$

ب) $y = \sqrt{\frac{\sqrt{n}+1}{\sqrt{n}-3}}$ $\begin{cases} \sqrt{n} \geq 0 & n \geq 0 \\ \sqrt{n}-3 \neq 0 & \sqrt{n} \neq 3 & n \neq 9 \end{cases}$ $D_f: [0, +\infty) - \{9\}$ ۱۷۸۵ (۳) ✓

الف) $y = \sqrt{\frac{3-|n|}{|n|+2}}$ $\begin{cases} 3-|n| \geq 0 & |n| \leq 3 & -3 \leq n \leq 3 \\ |n|+2 \neq 0 & |n| \neq -2 \quad \emptyset \end{cases}$ $D_f: [-3, 3]$ (۴) ✓

ب) $y = \frac{1}{\sqrt{n|n|}}$ $\begin{cases} n|n| \geq 0 & + \quad \emptyset \\ & - \quad \emptyset \\ & 0 \quad \emptyset \end{cases}$ $R^+ \subseteq (0, +\infty)$ صورت-میرال-آینه نوشته

الف) $y = \frac{n+1}{\sqrt{n+|n|}} = n+|n| \geq 0 \quad |n| \geq -n + \emptyset$ $R^+ \subseteq (0, +\infty)$

ب) $y = \frac{1}{\sqrt{n|n|}} \rightarrow n|n| \geq 0$ $R^+ \subseteq (0, +\infty)$ (۵) ✓

$$1) y = \sqrt{r - [x]} = r - [x] \geq 0 \quad r \geq [x] \quad Df = (-\infty, r)$$

(✓) ✓

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

$$3) y = \frac{1}{x[x]} \quad x[x] \neq 0 \quad \begin{cases} x \neq 0 \\ [x] \neq [0, 1) \end{cases} \quad Df = (-\infty, 0) \cup [1, +\infty)$$

(1, 1/2)

$$4) y = \frac{1}{-x[x]} \quad -x[x] \neq 0 \rightarrow Df = (\emptyset)$$

هذه ليست دالة

$$y = \sqrt{[n - \frac{1}{r}] + [n + \frac{r}{r}]} \Rightarrow [n - \frac{1}{r}] + [n + \frac{r}{r} - 1] \geq -1 \Rightarrow$$

$$[n - \frac{1}{r}] + [n - \frac{1}{r}] \geq -1 \quad r[n - \frac{1}{r}] \geq -1 \quad [n - \frac{1}{r}] \geq -\frac{1}{r} \Rightarrow n - \frac{1}{r} \geq -\frac{1}{r}$$

(1, 1/2) $n \geq \frac{1}{r}$

$$y = \sqrt{[n - \frac{1}{r}] + [-n + \frac{1}{r}]} \Rightarrow [n - \frac{1}{r}] + [- (n - \frac{1}{r})] \geq 0$$

$$[a] + [-a] = 0 \quad a \in \mathbb{Z} \quad n - \frac{1}{r} \in \mathbb{Z} \quad \{n \mid n = k + \frac{1}{r}, k \in \mathbb{Z}\}$$

$$1) y = \frac{1}{r \sin^2 x - 1} \rightarrow r \sin^2 x - 1 \neq 0 \quad r \sin^2 x \neq 1 \quad \sin^2 x \neq \frac{1}{r}$$

$$\sin x \neq \pm \sqrt{\frac{r}{r}}$$

(1, 1/2)

$$2) y = \frac{\cot x + 1}{\tan x + 1} \quad \begin{cases} \tan x + 1 \neq 0 \quad \tan x \neq -1 \\ \cos x \neq 0 \\ \sin x \neq 0 \end{cases}$$

(1, 1/2)

$$3) y = \sqrt{r \sin x - 1} \rightarrow r \sin x - 1 \geq 0 \quad r \sin x \geq 1 \quad \sin x \geq \frac{1}{r}$$

$$Df = [rka + \frac{a}{r}, rka + \frac{a}{r}]$$

(✓) ✓

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

$$Df = [rka + \frac{a}{r}, rka + \frac{a}{r}]$$