

۱۸, ۱۷۵

$$2(n-1)^2 + (y+2)^2 = 0 \Rightarrow 2n^2 - 2n + 2 + y^2 + 4y + 4 = 2n^2 + y^2 - 2n + 4y + 6$$

$$k = 4 + 1 = 11 \quad |m=1, y=-2| \quad (1, -2)$$

(۲)

a در صورتی که ...

$$a^2 + 2a = 2a + 2 \Rightarrow a^2 + a - 2 = (a+2)(a-1) \Rightarrow a = -2 \text{ یا } 1$$

فرض کنیم $a > 0$ و $a < 0$

$$f(1) \Rightarrow \begin{cases} n^2 + 2n & n \geq 1 \\ 2n + 2 & n \leq 1 \end{cases} \quad f(1) = f(0) + 2 = 2 \checkmark$$

(۲)

$$\begin{cases} n+1 \geq 1 & n \geq 1 \\ n+1 \leq 4 & n \leq 3 \end{cases} \Rightarrow \begin{cases} n^2 - b & n \geq 1 \\ -2 \leq n \leq -1 & a + 2n \end{cases}$$

تفاوت ...

$$11 - b = a - 2 \Rightarrow \boxed{a + b = 13} \checkmark$$

(۲)

$$\begin{aligned} ym - a &\geq 0 & ym &\geq a & n &\geq \frac{a}{y} \\ b - 2m &\geq 0 & b &\geq 2m & \frac{b}{2} &\geq m \end{aligned}$$

نقطه ...

$$\frac{b}{2} = 2 \quad \frac{a}{2} = 2 \quad \boxed{a=4, b=4}$$

$$\frac{b}{a} = \frac{1}{2}$$

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الف) $n+1 \geq 0 \Rightarrow n \geq -1$ $n-2 \neq 0 \Rightarrow n \neq 2$ $D_1 = [-1, +\infty) - \{2\}$

$y-n \geq 0 \Rightarrow y \geq n$ $(n+2) \neq 0 \Rightarrow n \neq -2$ $D_2 = (-\infty, -2) \cup (-2, +\infty) - \{2\}$

$D_1 \cap D_2 \Rightarrow [-1, 2) \cup (2, +\infty) - \{2\} = D_f$

ب) $[n] - 2 \geq 0 \Rightarrow [n] \geq 2 \Rightarrow n \geq 2$ $2 - [n] \geq 0 \Rightarrow 2 \geq [n]$

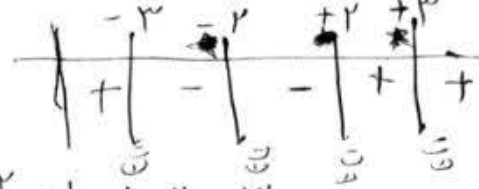
$\Rightarrow \frac{2}{n} \geq n \Rightarrow D_1 \cap D_2 \Rightarrow D_1 = [2, +\infty), D_2 = (-\infty, 2) \Rightarrow D_1 \cap D_2 = \emptyset \Rightarrow D_f = \emptyset \checkmark$

خارج ریشه ندارد

(۱, ۱۷۵)

$$a) y = \sqrt{\frac{(n-r)(n+r)}{(n-r)(n+r)(n+r)(n-r)}}$$

$$D_f = (-\infty, r) \cup (r, r) \cup (r, +\infty)$$



$$r) \sqrt{\frac{(n-1)(n+1)(n-1)}{(n-1)(n+1)(n+1)}}$$



$$D_f = (-\infty, -1) \cup (-1, 1) \cup (1, +\infty)$$

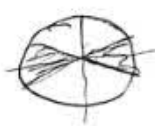
$$a) [-n] \geq 0 \quad [n] \geq 1 \quad n \leq -1 \quad D_f = (-\infty, -1]$$

$$b) \frac{[n]^2 + 4}{([n] + 1)([n] - 1)} \quad [n] + 1 \neq 0 \quad [n] - 1 \neq 0 \Rightarrow -1 < n < 1$$

$$D_f = (-\infty, -1) \cup [1, +\infty) \cup [0, 1)$$

$$a) \sin n, \cos n \neq 0 \quad \tan n \neq -1 \quad D_f = \mathbb{R} - \left\{ \frac{k\pi}{2}, k\pi - \frac{\pi}{4} \mid k \in \mathbb{Z} \right\}$$

$$b) 1 - \sqrt{\sin^2 n} \geq 0 \quad 1 \geq \sqrt{\sin^2 n} \quad \frac{1}{\sqrt{}} \geq \sin^2 n \quad \frac{1}{\sqrt{}} \geq |\sin n|$$



$$\left[k\pi - \frac{\pi}{4}, k\pi + \frac{\pi}{4} \right]$$

$$a) n-1 > 0 \quad n > 1 \quad 1 - \log_{\frac{1}{r}} n^{-1} \geq 0 \quad 1 \geq \log_{\frac{1}{r}} n^{-1}$$

$$\frac{r}{r} \leq n \Rightarrow D_f = \left[\frac{r}{r}, +\infty \right)$$

$$b) n^r - n \geq 0 \quad n(n-1) \geq 0 \quad (-\infty, 0] \cup [1, +\infty)$$

$$n^r - r n \geq 0 \quad (-\infty, 0] \cup (r, +\infty)$$

$$c) r n - n^r \geq r \quad 0 \geq n^r - r n + r \quad D_f = [1, r]$$

$$d) \frac{r n + \omega}{r n + r} \in W \quad n \in \frac{r W - \omega}{r}$$

$$r W n + r W = r n + \omega \quad r W - \omega = n(-r W + r) \quad n = \frac{r W - \omega}{-r W + r}$$

$$\{n \mid n = \frac{-r k + \omega}{r k - r}, k \in W\} = D_f$$

بعضی چیزها را در نظر بگیرید