

یک عبارت در بازه $(3, \infty)$ مثبت است پس سهمی مثبت $\Rightarrow a - 2 = 0 \Rightarrow a = 2$

$$\sqrt{4x+b} \quad y+b=0 \Rightarrow b=-6$$

$$\frac{2}{-\phi+}$$

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$$x^2 - 2x + 1 - m^2 \geq 0 \Rightarrow \Delta \leq 0 \Rightarrow 4 - 4 + 4m^2 \leq 0 \Rightarrow$$

$$m^2 - 2 + 1 \leq 0 \quad m^2 - 1 \leq 0 \quad \frac{-1 \pm 1}{+ \phi - \phi +} \quad \checkmark - (-1) = 2$$

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$$\left. \begin{array}{l} -2 \leq x \leq 2 \\ [x] + [-x] + 1 \neq 0 \Rightarrow x \in \mathbb{Z} \end{array} \right\} \Rightarrow \{-2, -1, 0, 1, 2\}$$

صحيح



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الف) $x^2(x+3) \geq 0 \quad \frac{-3}{-\phi+ \phi+} \quad D_f = [-3, \infty)$

ب) $\frac{(x^2-1)x^2(x-3)}{x^2-1} \geq 0$

$$\frac{-1 \quad 0^* \quad 1^* \quad 3}{+\phi - \phi - \phi - \phi +} \quad D_f = (-\infty, -1] \cup \{0\} \cup [3, \infty)$$

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الف) $|x-2| - 3 \geq 0 \Rightarrow \begin{cases} x > 2 \rightarrow x-5 \geq 0 \Rightarrow x \geq 5 \\ x \leq 0 \rightarrow -x-1 \geq 0 \Rightarrow x \leq -1 \end{cases}$

$$D_f = (-\infty, -1] \cup [5, \infty)$$

ب) $4 - |2-x| \geq 0 \quad \begin{array}{l} x < 2 \rightarrow 2+x \geq 0 \rightarrow x \geq -2 \\ x > 2 \rightarrow 4-x \geq 0 \rightarrow x \leq 4 \end{array} \quad D_f = [-2, 4]$

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$$1 - n|n| \geq 0 \rightarrow n \leq 0 \rightarrow 1 + n \geq 0 \Rightarrow n \geq -1$$

$$\rightarrow n \geq 0 \rightarrow 1 - n \geq 0 \Rightarrow n \leq 1$$

$$D_f = [-1, 1]$$

$$ب) \sqrt{n-1} \geq 0 \xrightarrow{n \geq 0} -n+1 \leq 0 \Rightarrow n \geq 1$$

$$\xrightarrow{n < 0} n-1 \geq 0 \Rightarrow n \geq 1$$

$$\sqrt{n-1} \neq 1 \Rightarrow n \neq 2, 0$$

$$D_f = [1, \infty) \cup [0, 1) - \{2, 0\}$$

$$ا) \cos n \neq 0 \quad D_f = \mathbb{R} - \{k\pi + \frac{\pi}{2}\}$$

$$ب) \sqrt{\cos n - 1} \neq 0 \Rightarrow \cos n \neq 1 \Rightarrow D_f = \mathbb{R} - \{2k\pi \pm \frac{\pi}{3}\}$$

$$ا) |r_{n+1}| \neq |n+r| \Rightarrow r^2 n^2 + r^2 n + 1 \neq n^2 + 2nr + r^2$$

$$r^2 n^2 - r^2 n - 1 \neq 0 \xrightarrow{ac} n^2 - rn - \frac{1}{r^2} \rightarrow n = \frac{-r \pm \sqrt{r^2 + 4/r^2}}{2}$$

$$ب) |r_{n+1}| \geq |n+r| \Rightarrow r^2 n^2 - r^2 n - 1 \geq 0 \quad \frac{-r \pm \sqrt{r^2 + 4/r^2}}{2}$$

$$D_f = (-\infty, \frac{-r}{2}] \cup [\frac{r}{2}, \infty)$$

$$\log_{\frac{1}{r}} \log_0^{(rn-1)} \geq 0 \Rightarrow \log_0^{(rn-1)} \geq 1 \Rightarrow rn-1 \geq 0 \Rightarrow n \geq \frac{1}{r}$$

$$rn-1 > 0 \Rightarrow n > \frac{1}{r}$$

$$\log_0^{(rn-1)} > 0 \quad rn-1 > 1 \quad n > 1$$

$$D_f = [1, \infty)$$

$$ا) \sqrt{\cos n + 1} > 0 \quad \cos n > -\frac{1}{r}$$

$$D_f = [2k\pi - \frac{\pi}{r}, 2k\pi + \frac{\pi}{r}]$$

$$ب) \log_{\frac{n-1}{n+1}} \geq 0 \quad \frac{n-1}{n+1} \geq 1 \Rightarrow \frac{-2}{n+1} \geq 0 \quad \frac{-1}{+\frac{1}{2}-}$$

$$\frac{n-1}{n+1} > 0 \quad D_f = (-\infty, -1)$$

$$4- \text{ب) } 3 - |n-5| \geq 0 \rightarrow |n-5| \leq 3 \rightarrow -3 \leq n-5 \leq 3 \rightarrow 2 \leq n \leq 8$$

$$\sqrt{3 - |n-5|} - 1 \neq 0 \rightarrow \sqrt{3 - |n-5|} \neq 1 \rightarrow 3 - |n-5| \neq 2 \rightarrow |n-5| \neq 2 \rightarrow n \neq 3, 7$$

$$D_f = [2, 8] - \{3, 7\} = [2, 3) \cup (3, 7) \cup (7, 8]$$

$$9) \log_{1/5} \log_a^{n-1} \rightarrow n-1 > 0 \rightarrow n > 1$$

$$\log_a^{n-1} > 0 \rightarrow n-1 > 0 \rightarrow n-1 > 1 \rightarrow n > 2$$

$$\log_{1/5} \log_a^{n-1} \geq 0 \xrightarrow[\text{منه 2!}]{\text{من باب 2!}} \log_a^{n-1} \leq 1 \rightarrow \log_a^{n-1} \leq 1 \rightarrow n-1 \leq 5 \rightarrow n \leq 6 \rightarrow n \leq 3$$

$$\hookrightarrow D_f = (1, 3]$$