

آزمون یکپارچگی کرده یا نرم پیوسته

① چون یک ریشه دارد، ضابطه فیت این باید صادق باشد $a \leq 2$ $a \geq 0$

$$f(x) = \sqrt{2x+6} \rightarrow x \geq -3 \quad 4 \leq b \leq 0 \rightarrow \boxed{b = -4}$$

② $\Delta < 0 \rightarrow 4 - 4(1-m^2) < 0 \rightarrow 4m^2 - 4 < 0$

$$4(m^2 - 1) < 0 \rightarrow \frac{-1}{+1} < \frac{1}{-1}$$

$$\rightarrow m \in [-1, 1] \rightarrow 1 - (-1) = 2$$

③ $4 - x^2 \geq 0 \rightarrow -2 \leq x \leq 2$ $\emptyset$ یعنی بازه ای اعداد صحیح منفی شود (یکی شود)

عدد در دامنه است

④ $x^2(x+3) \geq 0$ $\frac{-3}{-1} \quad \frac{0}{0} \quad \frac{0}{0} \rightarrow D = [-3, +\infty)$ (این)

⑤ $\frac{x^2(x-1)(x+1)(x-3)}{(x-1)(x^2+1)}$ $\frac{-1}{+1} \quad \frac{0}{0} \quad \frac{1}{-1} \quad \frac{3}{-1} \rightarrow D = (-\infty, -1] \cup \{0\} \cup [3, +\infty)$ (ب)

الف) $|u-x| - 3 > 0 \rightarrow |u-x| > 3 \rightarrow u-x > 3 \rightarrow u > 3+x$
 $\rightarrow u-x < -3 \rightarrow u < x-3$
 $\rightarrow D = (-\infty, -1] \cup [5, +\infty)$ (3)

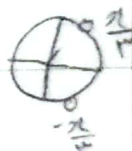
ب) $4 - |x-u| > 0 \rightarrow |x-u| < 4 \rightarrow -4 < x-u < 4$
 $-4 < x-u < 4 \rightarrow 4 > x-u > -4$
 $\rightarrow D = [x, 4]$

الف) $1 - u|u| > 0 \rightarrow u|u| < 1 \rightarrow D = (-\infty, 1]$ (4)

ب) $3 - |u-5| > 0 \rightarrow |u-5| < 3 \rightarrow -3 < u-5 < 3$
 $2 < u < 8$
 $3 - |u-5| < 1 \rightarrow |u-5| > 2 \rightarrow u-5 > 2 \rightarrow u > 7$
 $u-5 < -2 \rightarrow u < 3$
 $\rightarrow D = [2, 1] - \{3, 7\}$

الف) $\mathbb{R} - \{k\pi + \frac{\pi}{4}\} \leftarrow \text{حيث } \cos u \neq 0 \text{ بل}$ (5)

ب) $\mathbb{R} - \{2k\pi \pm \frac{\pi}{4}\} \rightarrow 2\cos u - 1 \neq 0 \rightarrow \cos u \neq \frac{1}{2}$



الف) $|2u+1| - |u+3| = 0 \xrightarrow{\text{نحوه}} 2u+1 \neq u+3 \rightarrow (2u+1) > 0$ (6)

$\rightarrow 2u^2 - 2u - 1 > 0 \rightarrow u^2 - u - \frac{1}{2} > 0 \rightarrow (u-2)(u+\frac{1}{2}) > 0$
 $u > 2, u < -\frac{1}{2}$

$D = \mathbb{R} - \{2, -\frac{1}{2}\}$

ب) $|2u+1| - |u+3| > 0 \xrightarrow{\text{نحوه}} 2u^2 - 2u - 1 > 0 \rightarrow (u-2)(u+\frac{1}{2}) > 0$

$\frac{2}{-} \frac{1}{+}$

$D = (-\infty, -\frac{1}{2}] \cup [2, +\infty)$

$$\log_{\omega} \log_{\omega}^{2n-1} \geq 0 \rightarrow \log_{\omega}^{2n-1} \leq 1 \rightarrow 2n-1 \leq \omega \rightarrow 2n \leq 4 \rightarrow n \leq 2 \quad (9)$$

$$2n-1 \geq 0 \rightarrow 2n \geq 1 \rightarrow n \geq \frac{1}{2} \quad (10) \quad \textcircled{1} \cap \textcircled{9} \cap \textcircled{8} \rightarrow D = (1, 2]$$

$$\log_{\omega}^{2n-1} \geq 0 \rightarrow 2n-1 \geq 1 \rightarrow 2n \geq 2 \rightarrow n \geq 1 \quad (11)$$

الف) $\cos n\pi \geq 0 \rightarrow \cos n\pi \geq -\frac{1}{2}$

$$\rightarrow D = \left(2k\pi - \frac{2\pi}{3}, 2k\pi + \frac{2\pi}{3} \right)$$



ب) $\log_{\frac{n-1}{n+1}} \geq 0 \quad \frac{n-1}{n+1} \geq 1 \rightarrow \frac{n-1-(n+1)}{n+1} \geq 0$

$$\frac{-2}{n+1} \geq 0 \rightarrow \frac{-1}{\frac{n+1}{2}} \rightarrow D = (-\infty, -1)$$