

## ۲۰. آزمون خوب نوشتن

آزمون بکیری کرده یازدهم پنجم

چون یک ریشه دارد، ضابطه فیت این باید معادله درجه یک باشد  $\rightarrow a \leq 1 \rightarrow a = 2 > 0$  (۱)

$$f(x) = \sqrt{2x+6} \rightarrow x \leq -3 \quad 4ab > 0 \rightarrow \boxed{b < -4} \quad (۲)$$

$$\Delta < 0 \rightarrow 4 - 4(2-m^2) < 0 \rightarrow 4m^2 - 4 < 0 \quad (۳)$$

$$4(m^2 - 1) < 0 \rightarrow \frac{-1}{+1} < \frac{1}{+1} \rightarrow m \in [-1, 1] \rightarrow 1 - (-1) = 2 \quad (۴)$$

$$x - x^2 \geq 0 \rightarrow -2 \leq x \leq 2 \quad (۵)$$

لا بد که در دامنه است

مخرج به ازای اعداد صحیح منفی شود (یکی شود)

$$x^2(x+3) \geq 0 \quad \begin{array}{c} 0 \\ -3 \end{array} \quad \begin{array}{c} + \\ - \end{array} \quad \rightarrow \boxed{D = [-3, +\infty)} \quad (۶)$$

$$\frac{x^2(x-1)(x+1)(x-3)}{(x-1)(x^2+11x+1)} \geq 0 \quad \begin{array}{c} -1 \quad 0 \quad 1 \quad 3 \\ + \quad - \quad - \quad + \end{array} \rightarrow \boxed{D = (-\infty, -1] \cup \{0\} \cup [3, +\infty)} \quad (۷)$$

الف)  $|u-x| - 3 > 0 \rightarrow |u-x| > 3 \rightarrow u-x > 3 \rightarrow u > x+3$   
 $\rightarrow u-x < -3 \rightarrow u < x-1$   
 $\rightarrow D = (-\infty, -1] \cup [4, +\infty)$  د

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

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

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

الف)  $\mathbb{R} - \{kx + \frac{x}{\sqrt{2}}\} \leftarrow \text{حيث } \cos k \neq 0 \text{ و } \sin k \neq 0$  د

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



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

$\rightarrow 3u^2 - 2u - 1 > 0 \rightarrow u^2 - 2u - 1 > 0 \rightarrow (u-1)(3u+1) > 0$   
 $u > 1, u < -\frac{1}{3}$

$D = \mathbb{R} - \{1, -\frac{1}{3}\}$

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

$\frac{3}{-} \quad \frac{1}{+}$   
 $\frac{3}{-} \quad \frac{1}{+}$

$D = (-\infty, -\frac{1}{3}] \cup [1, +\infty)$  د

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

$$2n-1 \geq 0 \rightarrow 2n \geq 1 \rightarrow n \geq \frac{1}{2} \quad (8) \quad \textcircled{1} \cap \textcircled{8} \cap \textcircled{9} \rightarrow D = (1, 3]$$

$$\log_{\omega}^{2n-1} \geq 0 \rightarrow 2n-1 \geq 1 \rightarrow 2n \geq 2 \rightarrow n \geq 1 \quad (5)$$

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

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



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

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