

$$g = \frac{1}{n+1} \quad \text{او } 1-2 \text{ و } 3$$

(الف) ①

$$n^2 + 1 \leq n+1 \rightarrow (n+1)(n-1) \rightarrow D = \mathbb{R} - \left\{1, -\frac{1}{2}, \frac{1}{3}\right\}$$

$$\frac{-\omega + \sqrt{\omega^2 - 4}}{2} = \frac{1}{2} \rightarrow \omega = 1$$

$$(n+1)(n+1) \rightarrow D = \mathbb{R} - \left\{1, -\frac{1}{2}, \frac{1}{3}\right\}$$

$$\frac{-1 + \sqrt{1 - 4}}{2} = \frac{1}{2} \rightarrow 1$$

$$(n-1)(n+1) \rightarrow D = \mathbb{R} - \{1\}$$

(الف) ②

$$\frac{1}{1} \Delta \omega$$

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

$$n^2 - \omega |n-1| - n + \omega = |n-1|^2 - \omega |n-1| + \omega$$

$$t^2 - \omega t + \omega = 0$$

$$\rightarrow |n-1| = 1 \rightarrow n-1 = \pm 1 \rightarrow n = 2, 0$$

$$|n-1| = \frac{1}{2} \rightarrow n-1 = \pm \frac{1}{2} \rightarrow n = \frac{3}{2}, \frac{1}{2}$$

$$D = \mathbb{R} - \left\{0, -\frac{1}{2}, \frac{1}{3}\right\}$$

$$[-n] \rightarrow [-n] \geq 1 \rightarrow -n \geq 1 \rightarrow n \leq -1$$

$$D = (-\infty, -1] \quad [n] = t \quad D = \mathbb{R} - \left\{-\frac{1}{2}, 0\right\} \cup \left[\frac{1}{2}, \infty\right)$$

$$[n] = -1 \rightarrow -1 \leq n < 0$$

$$t^2 - 2t - 1 = 0$$

$$[n] = 1 \rightarrow 1 \leq n < 2$$

Senobar

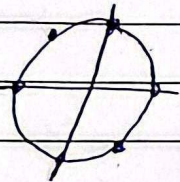
$$| \left[n - \frac{1}{r} \right] + 1 | \geq 0 \rightarrow \left[n - \frac{1}{r} \right] \geq -1 \quad (و) \quad (a)$$

$$n - \frac{1}{r} \geq 0 \rightarrow n \geq \frac{1}{r} \rightarrow D = \left[\frac{1}{r}, +\infty \right)$$

$$\sqrt{[t], [-t]} \rightarrow n - \frac{1}{r} \in \mathbb{Z} \rightarrow n \in \mathbb{Z} + \frac{1}{r}$$

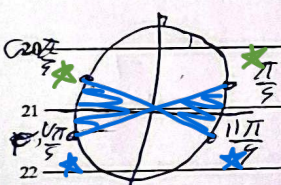
$$D = \left\{ n \mid n = k + \frac{1}{r}, k \in \mathbb{Z} \right\}$$

$$\tan \alpha \neq 1 \quad \left\{ \begin{array}{l} \tan \alpha, \cot \alpha \rightarrow \frac{1}{\tan \alpha} \end{array} \right\} \Rightarrow R = \left\{ \frac{k\pi}{r}, k\pi + \frac{\pi}{r} \right\}$$



1, v8

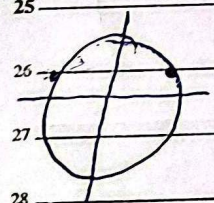
$$| \sin \alpha | \geq \frac{1}{r} \rightarrow \sin \alpha \geq \frac{1}{r} \rightarrow \frac{1}{r} \leq \sin \alpha \leq \frac{1}{r}$$



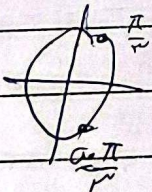
$$D = \left[k\pi + \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$

$$D_p = \left[k\pi - \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$

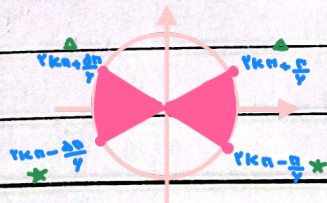
$$| \sin \alpha - 1 | \geq 0 \rightarrow \sin \alpha \geq \frac{1}{r} \rightarrow D = \left[k\pi + \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right] \quad (و) \quad (v)$$



$$1 - | \cos \alpha | \geq 0 \rightarrow \cos \alpha \leq \frac{1}{r} \rightarrow D = \left[k\pi + \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$



$$4-ب) 1 - | \sin \alpha | \geq 0 \rightarrow | \sin \alpha | \leq 1 \rightarrow \sin \alpha \leq \frac{1}{r} \rightarrow -\frac{1}{r} \leq \sin \alpha \leq \frac{1}{r}$$



$$D_p = \left[k\pi - \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$



الف) $-1 \leq m^r + m + 1 \leq 1$

$m(m+1) \leq 1 \Rightarrow m^2 + m - 1 \leq 0$

$D = [-5, -1] \cup [1, 0]$

$\omega - m \geq 0 \Rightarrow m \leq \omega \Rightarrow \sqrt{\omega - m} \leq 1 \Rightarrow m \geq r$

$-1 \leq \cos y \leq 1 \Rightarrow \sqrt{1 - \cos y} \leq 1$

$D = [r, r, \omega]$

الف) $1 - \log_r^n > 0 \Rightarrow \log_r^n < 1 \Rightarrow n < r$

$D = (1, r)$

$n > 0 \Rightarrow 0 < n < r$

$D = (0, r)$

ب) $1 - \log_{\frac{1}{r}}^n > 0 \Rightarrow \log_{\frac{1}{r}}^n < 1 \Rightarrow n > \frac{1}{r} \Rightarrow D = (\frac{1}{r}, +\infty)$

الف) $r^{\xi m - n^r} - 1 > 0 \Rightarrow r^{\xi m - n^r} > 1 \Rightarrow \xi m - n^r > 0$

$-n^r + \xi m - r > 0 \Rightarrow \xi m > n^r + r \Rightarrow D = [r, 1]$

ب) $\frac{r^{m+\omega}}{r^{m+\xi}} \in W \Rightarrow m \in \frac{\xi W - \omega}{r - r^n} \Rightarrow D = \{m \mid \frac{\xi W - \omega}{r - r^n} \leq m \leq \frac{\xi W - \omega}{r - r^n}, K \in W\}$

