

سنة 1441

SUBJECT

Year:

Month:

Day:

Page: ()

1) الف

$$y = \frac{1}{x^2} \quad \text{أو } x^{-2}$$

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

$$\frac{-\omega + \nu}{\varepsilon} = \frac{1}{\varepsilon} \rightarrow \omega - \nu = -\varepsilon$$

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

$$\frac{-\nu + \omega}{\varepsilon} = \frac{1}{\varepsilon} \rightarrow \nu - \omega = -\varepsilon$$

2) الف

$$(n-1)(n^2 - n + 1) \rightarrow D = \mathbb{R} - \{1\}$$

$$\frac{1}{1} \quad \Delta <$$

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

$$n^2 - 1n^2 + 1n - 1$$

$$(n-1)(n^2 - n + 1)$$

3) الف

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

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

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

4) الف

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

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

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

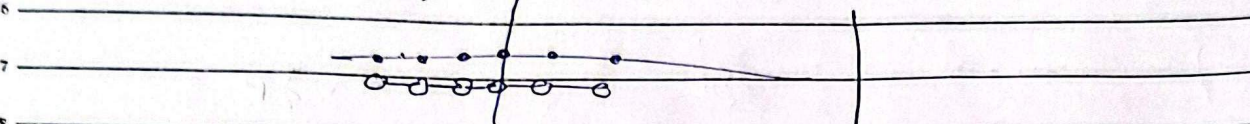
$$[n] = 1 \rightarrow 1 \leq n < 2$$



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

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

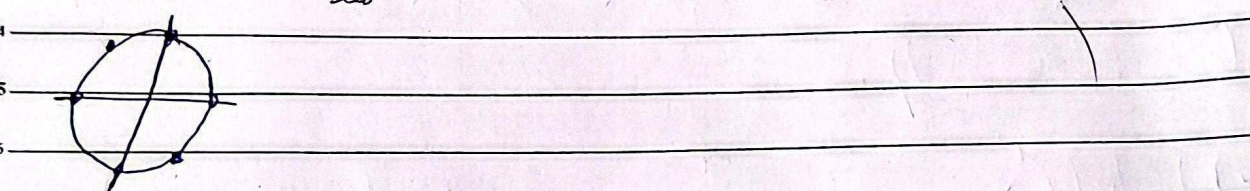
$$\sqrt{[t], [-t]} \rightarrow n - \frac{1}{r} \in \mathbb{Z} \rightarrow n \in \mathbb{Z} + \frac{1}{r}$$



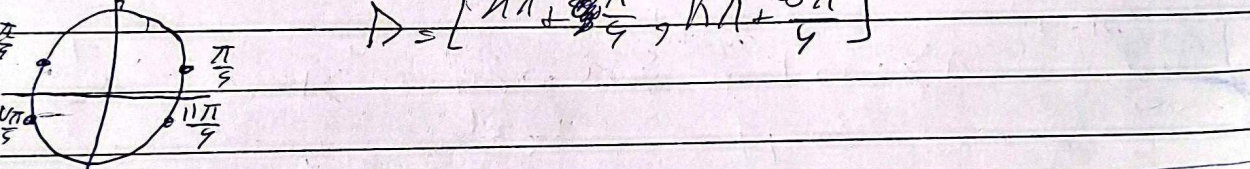
$$D = \left\{ n \mid n = k + \frac{1}{r}, k \in \mathbb{Z} \right\}$$

$\tan \alpha \neq 1$

$$(ii) \tan, \cot \rightarrow \frac{t}{u} \Rightarrow R = \left\{ \frac{k\pi}{r}, k\pi + \frac{\pi}{r} \right\}$$



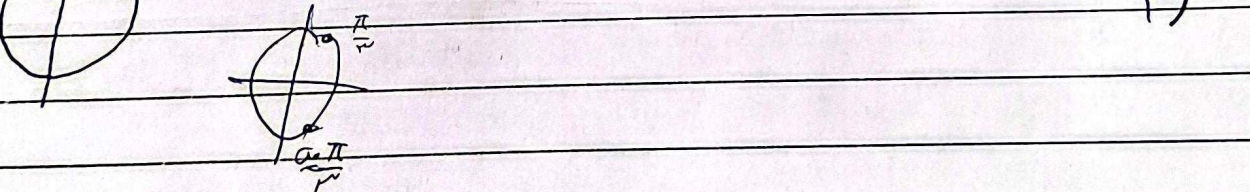
$$| \sin n | \rightarrow | \sin n | \leq \frac{1}{r} \rightarrow \frac{1}{r} \leq \sin n \leq \frac{1}{r}$$



$$D = \left[k\pi + \frac{\pi}{r}, k\pi + \frac{5\pi}{r} \right]$$

$$| \sin n - 1 | \rightarrow \sin n \geq \frac{1}{r} \rightarrow D = \left[k\pi + \frac{\pi}{r}, k\pi + \frac{5\pi}{r} \right] \quad (ii) \quad (v)$$

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



الف) $-1 \leq m^r + m + 1 \leq 1$

7

$m(m+1) \leq \frac{r-1}{2} \Rightarrow m^2 + m \leq \frac{r-1}{2}$
 $\Rightarrow m^2 + m + 1 \leq \frac{r-1}{2} + 1 = \frac{r+1}{2}$
 $D = [-\frac{r-1}{2}, \frac{r-1}{2}] \cup [-1, 0]$

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

$-1 \leq \cos y \leq 1 \Rightarrow \sqrt{r} \leq \omega$
 $D = [r, r, \omega]$

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

9

$D = (1, r, r)$ $n > 0 \Rightarrow 0 < n < r$
 $D = (0, r)$

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

10

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

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

