

⑥ ا) $1 - n/|n| \geq 0$

$n/|n| \leq 1$

$n \leq 1$ ✓

{	$x \leq 1$	$n > 0 \rightarrow$ $x \leq 1$
	$0 \leq x$	$x = 0 \rightarrow \checkmark$
	$-x \leq 1$	$x < 0 \rightarrow \checkmark$

$$\text{---} \quad \mu - |\lambda - \Delta| > 1 \quad \xrightarrow{\mu} \quad |\lambda - \Delta| < \mu \quad \rightarrow \quad \mu < \lambda < 1$$

$$\sqrt{\mu - |\lambda - \Delta|} \neq 1 \quad \xrightarrow{I \cup \bar{I}} \quad \mu - |\lambda - \Delta| \neq 1 \quad \rightarrow \quad \begin{aligned} &|\lambda - \Delta| \neq \mu \\ &\lambda - \Delta \neq \mu \\ &\lambda - \Delta \neq -\mu \end{aligned} \quad \rightarrow \quad \lambda \neq \mu, -\mu$$

$$\rightarrow [\mu, \lambda] = \{\mu, \lambda\}$$

⊂

$$⑧ \text{ vii) } \cos x \neq 0 \rightarrow \mathbb{R} - \left\{ k\pi + \frac{\pi}{2} \right\}$$



$$\rightarrow) \cos x - 1 \neq 0 \quad \cos x \neq \frac{1}{2} \quad \mathbb{R} - \left\{ 2k\pi \pm \frac{\pi}{3} \right\}$$

$$\textcircled{A} \text{ vii) } |r_{n+1}| = |n+r| \frac{|r|}{n} \rightarrow (r_{n+1})^r = (n+r)^r \rightarrow \epsilon_n^r + \epsilon_{n+1} = n + \epsilon_n + 9$$

$$\rightarrow r^2 - r - 1 = 0 \rightarrow \frac{r \pm \sqrt{r^2 + 4}}{2} < \frac{r}{r-1} \quad \mathbb{R} - \left\{ r, -\frac{r}{r-1} \right\}$$

$$\rightarrow) \mathbb{R} \setminus \left(\frac{-\frac{r}{r-1}}{1} + 1 \right) + (-\infty, -\frac{r}{r-1}] \cup [\frac{r}{r-1}, +\infty)$$

$$\textcircled{9} \log_{\frac{1}{\Delta}} (\log_{\Delta} (r_{n-1})) < 0 \quad \log_{\Delta} (r_{n-1}) \leq 1 \rightarrow r_{n-1} \leq \Delta \rightarrow n \leq \mu$$

$$\log_{\Delta} (r_{n-1}) > 0 \rightarrow r_{n-1} > 1 \rightarrow n > 1$$

$$\rightarrow 1 < n < \mu$$

(10) ان $r \cos n + 1 \geq 0$ $\cos n > -\frac{1}{r}$
 $\underline{n-1}$



$\left(r k \pi - \frac{r k}{r}, r k \pi + \frac{r k}{r} \right)$

$$\Rightarrow \log \frac{n-1}{n+1} > 0 \rightarrow \frac{n-1}{n+1} > 1 \rightarrow \frac{n-1-(n+1)}{n+1} > 0$$

$$\rightarrow -\frac{2}{n+1} > 0 \rightarrow n < -1$$

$$\frac{n-1}{n+1} > 0$$

$$\frac{-1}{+} \cdot \frac{1}{+} = +$$

$$\rightarrow \infty$$