

الف)	$\begin{aligned} r - [n] &\geq 0 \\ r &\geq [n] \\ [n] &\leq r \end{aligned}$ $P_p = (-\infty, r)$	ب)	$\begin{aligned} r - [n] &> 0 \\ [n] &< r \end{aligned}$ $P_p = (-\infty, r)$	۶
الف)	$\begin{aligned} n[n] &\neq 0 \\ n &\neq 0 \quad [n] \neq 0 \\ 0 &\leq n < 1 \end{aligned}$ $P_p = (-\infty, 0) \cup [1, \infty)$	ب)	$\begin{aligned} -n[n] &> 0 \\ n[n] &< 0 \end{aligned}$ همه چیز کمتر از ۰ و فزاید بیشتر $P_p = \emptyset$	۷
الف)	$\begin{aligned} [n + \frac{r}{2}] + [n + \frac{r}{2} - 1] &\geq 0 \\ [n + \frac{r}{2}] &\geq 1 \\ [n + \frac{r}{2}] &\geq 1 \\ n + \frac{r}{2} &\geq 1 \\ [n] &\geq \frac{1}{2} \end{aligned}$ $P_p = [\frac{1}{2}, \infty)$	ب)	$\begin{aligned} [n - \frac{1}{2}] + [-n + \frac{1}{2}] &\geq 0 \\ [a] + [-a] &\geq 0 \end{aligned}$ برای اعداد صحیح دو عدد صحیح ۱- ۰ $n - \frac{1}{2} \in \mathbb{Z} \Rightarrow P_p = \{n \in \mathbb{R} \mid n = k + \frac{1}{2}, k \in \mathbb{Z}\}$	۸
الف)	$\begin{aligned} r \sin^2 n - 1 &\neq 0 \\ r \sin^2 n &\neq 1 \\ \sin^2 n &\neq \frac{1}{r} \\ \sin n &\neq \pm \frac{1}{\sqrt{r}} \end{aligned}$ $P_p = \mathbb{R} - \left\{ kn + \frac{\pi}{2}, kn + \frac{3\pi}{2}, k \in \mathbb{Z} \right\}$	ب)	$\begin{aligned} \cot n, \tan n &\neq 0 \\ \tan n + 1 &\neq 0 \Rightarrow n \neq \frac{k\pi}{2} \\ \tan n &\neq -1 \Rightarrow n \neq \frac{k\pi}{2} + \frac{3\pi}{4} \end{aligned}$ $P_p = \mathbb{R} - \left\{ \frac{k\pi}{2}, \frac{k\pi}{2} + \frac{3\pi}{4}, k \in \mathbb{Z} \right\}$	۹
الف)	$\begin{aligned} r \sin n - 1 &\geq 0 \\ r \sin n &\geq 1 \\ \sin n &\geq \frac{1}{r} \end{aligned}$ $P_p = \left[kn + \frac{\pi}{2}, kn + \frac{\pi}{2} \right]$ $k \in \mathbb{Z}$	ب)	$\begin{aligned} 1 - r \cos n &\geq 0 \\ 1 &\geq r \cos n \\ \cos n &\leq \frac{1}{r} \\ k &\in \mathbb{Z} \end{aligned}$ $P_p = \left[kn + \frac{\pi}{2}, kn + \frac{3\pi}{2} \right]$	۱۰