ملاحظه ۲:

$P_k = e^{-\lambda} \frac{\lambda^k}{k!}$

$\lambda = 20$

$N = \lfloor \lambda \rfloor$

$S_k = P_0 + \cdots + P_k$

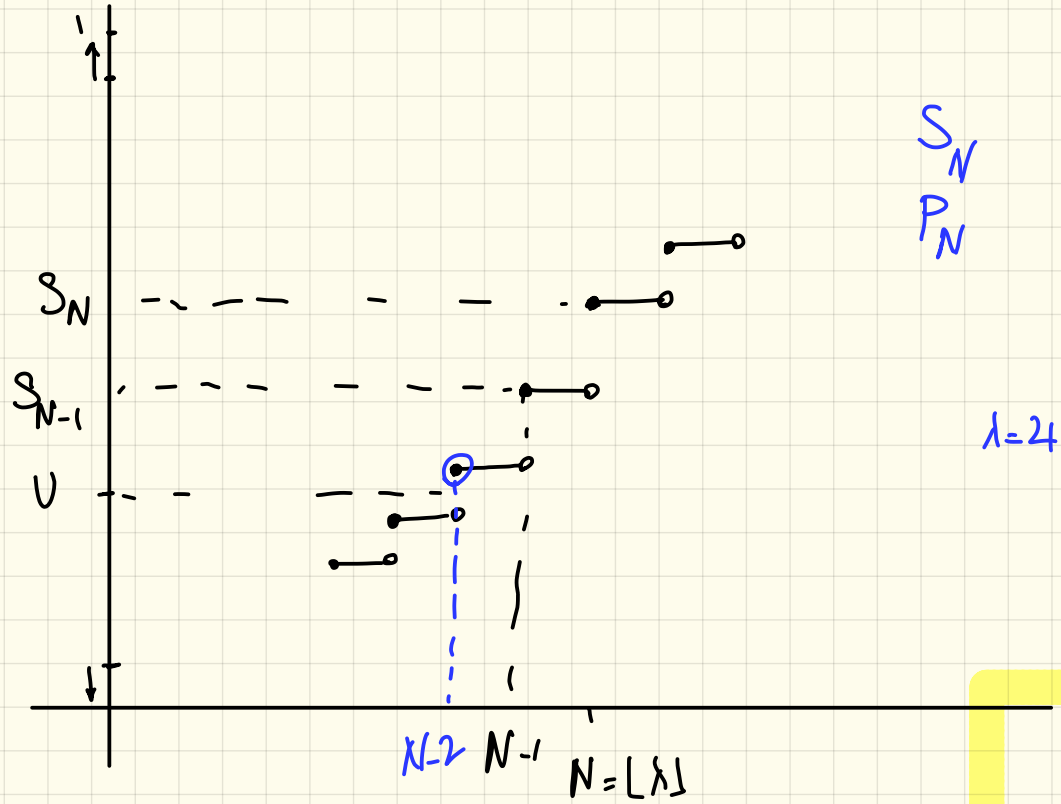
$U : \text{unif}[0,1]$

مقایسه U و S_N

k اولین جایی که $S_k < U$ $\rightarrow k+1$

$$\begin{cases} U < S_N & S_{N-1}, S_{N-2}, \cdots, S_k \\ U \geq S_N & S_{N+1}, S_{N+2}, \cdots, S_k \end{cases}$$

$k \leftarrow$ اولین جایی که $S_k > U$



S_N
P_N

$\lambda = 40$