

$$\lambda=2, \mu=3, K=5$$

$$\rho = \frac{\lambda}{\mu} \approx 0.66$$

$$NS = L = \begin{cases} \frac{\rho(1 - (K+1)\rho^K + K\rho^{K+1})}{(1-\rho)(1-\rho^{K+1})} & \rho \neq 1 \\ K/2 & \rho = 1 \end{cases} \approx 1.422556391$$

Número usuarios en el sistema

$$P_0 = \begin{cases} \frac{1-\rho}{1-\rho^{K+1}} & \rho \neq 1 \\ \frac{1}{K+1} & \rho = 1 \end{cases} \quad P_K = P_0 \rho^K \quad \lambda_{ef} = \lambda(1-P_K)$$

$$TS = W = \frac{L}{\lambda_{ef}} \approx 0.7472353870$$

Tiempo en sistema

$$L_s = P_r(\text{servidor ocupado}) = 1 - P_0 (\text{Promedio en servicio})$$

$$Nw = L_q = L - L_s \approx 0.787969925$$

$$Tw = W_q = \frac{L_q}{\lambda_{ef}} \approx 0.4139020537$$