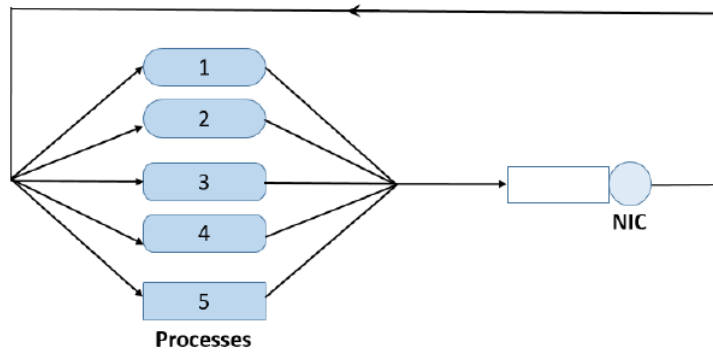
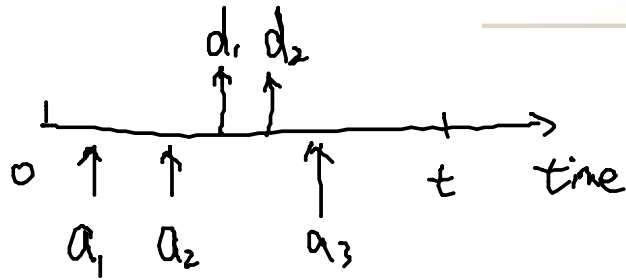


for each process: ① other resource ② waiting in queue  
③ being served

②  $\Rightarrow$  ③ passive event



$$\gamma(t) = \sum_{n=1}^{\alpha(t)} \min\{d_n, t\} - a_n = \int_0^t N(s) ds$$



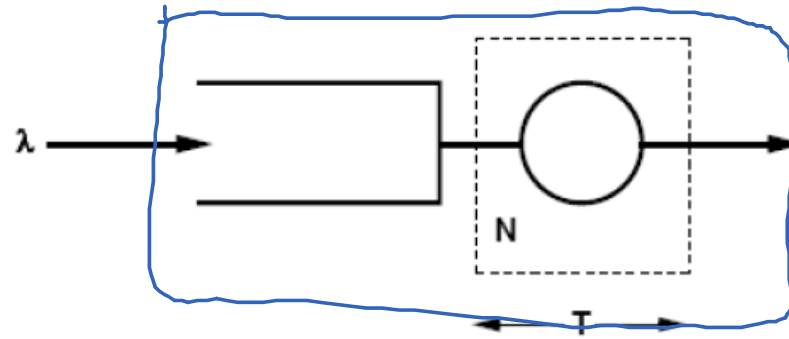
$$\gamma(t) = (d_1 - a_1) + (d_2 - a_2) + (t - a_3)$$
$$\alpha(t) = 3$$

$$T_t = \gamma(t) / \alpha(t)$$

$$N_t = \gamma(t) / t$$

$$\lambda_t = \alpha(t) / t$$

$$N_t = \lambda_t T_t$$



$$N = \lambda T$$

$T$ : waiting + service time ,  $N$ : # of jobs in both queue and server