Kendall Notation

M/M/1

$(a/b/c) : (d/e/f)$

a = Input(s) / Arrival time distribution

a/b
- M: Poisson arrival distribution.
- D: Deterministic arrival distribution
- E_k: Erlagrian / Gamma inter-arrival distribution
- GI: General Independent distribution
- G_n: General distribution

b = Output(s) / Departure time distribution

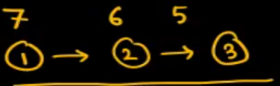
c = number of service channels.

d = service discipline.

e = Maximum number of customers,

f = Calling source.

λ = mean arrival time



Q □ □ $\frac{7+6+5}{3} = 6$

μ = mean service time

Q $\frac{4+5+2}{3} = \frac{11}{3}$

ρ = utilization factor

$= \frac{\lambda}{\mu}$

$\rho < 1$

$\rho = 1$

$\rho > 1$

n = number of units in the system

$P_n(t)$ = Probability of exactly 'n' units in the system at time 't'.

C = number of parallel servers.

λ = 6 min

μ = 10 min

10 car / hour
10 car / 60 min
1 car / 6 min

$$\rho = \frac{\lambda}{\mu} = \frac{6\,\text{min}}{10\,\text{min}} = 0.6$$

6 car / hour
6 car / 60 min
1 car / 10 min

(a / b / c) : (d / e / f)
(M / M / 1) : (FCFS / ∞ / ∞)