

- **In $M/M/c$, the mean number of busy servers is**
 - a) $\rho = \lambda/(c\mu)$.
 - b) $a = \lambda/\mu$.
 - c) $L - L_q$.
 - d) $< c$.
- **A $M/M/c$ with arrival rate λ and service rate μ is**
 - a) The same as a $M/M/1$ with same λ and service rate $c\mu$
 - b) “Better” than a $M/M/1$ with same λ and service rate $c\mu$
 - c) “Worse” than a $M/M/1$ with same λ and service rate $c\mu$
 - d) Not always better than the above $M/M/1$.
- **A $M/M/c$ with arrival rate λ and service rate μ is**
 - a) The same as c parallel $M/M/1$ s with same λ and μ
 - b) Better than c parallel $M/M/1$ s with same λ and μ
 - c) Worse than c parallel $M/M/1$ s with same λ and μ
 - d) Not always better c parallel $M/M/1$ s with same λ and μ
- **An $M/M/c/c$ with arrival rate λ and service rate μ is**
 - a) Better than a $M/G/c/c$ with same λ and μ and $G \sim U(0, 2/\mu)$.
 - b) Worse than a $M/G/c/c$ with same λ and μ and $G \sim U(0, 2/\mu)$.
 - c) Same as a $M/G/c/c$ with same λ and μ and $G \sim U(0, 2/\mu)$.
 - d) Developed by E. K. Erlang in 1917 to model internet traffic.