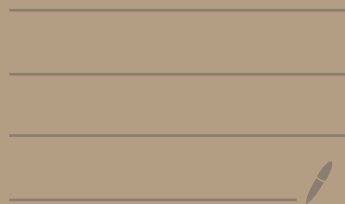
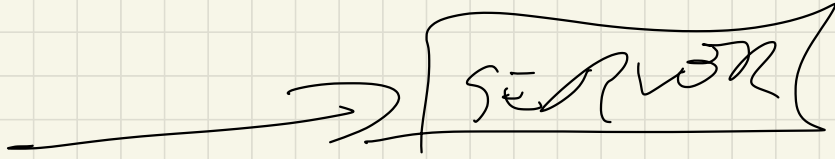


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CUSTOMERS

NUMBER OF CUSTOMERS ARRIVING DURING TIME t IS POISSON WITH PARAM βt

$$P(n) = e^{-\beta t} \frac{(\beta t)^n}{n!} \quad \text{MEAN} = \beta t$$

TIME TO SERVE 1 CUSTOMER IS EXPONENTIAL α

WE WANT PMF FOR NUMBER NEW ARRIVALS