**QN 1**

For the interarrival time I used the formula =1+(15-1)\*RAND() in B2, then I drag it down to B21 to simulate uniformly distributed interarrival times between 1 and 15 minutes.

For service time, I used the formula =1+(8-1)\*RAND() in D2, then I drag it down to D21 to simulate uniformly distributed interarrival times between 1 and 8 minutes.

For the first customer, the arrival time is 0 then for other customers, I added C2+B3 and I drag it down

The service begin time for the first customer is 0 and then for the rest I used the formula = MAX(current arrival time, previous service End time) then I drag it now for the rest of the rows

For the waiting time, I got the difference between service begin time and arrival time

For Time in service, I got the difference between service End time and service begin time

For the idle time, the first customer is 0 and the other customers, I used the formula =MAX(0, current arrival time- previous Service End Time

To get the average Customer Time in System, I used the formula =Average(H2:H21) and to get the Percentage of Idle Time, I first got the sum of the idle time then in divided it with 180minutes