

```
#AGYEMANG ERIC
#MAT 455 HMW8 CODES
# Queston 6.42
trial <-10000
lambda<-5
time<-120
simulationlist<-numeric(trial)
for(i in 1:trial){
  N<-rpois(1,lambda*time) # N is the number of customers in the restaurants in 2 hours
  errr<-runif(N,0,120)
  arrivals<-sort(errr)
  spends<-rexp(N,1/40)
  T<-arrivals+spends
  simulationlist[i]<-sum(T>120) # no of customers at 2 pm
}
mean(simulationlist) # The required mean
var(simulationlist) # The required variance
```