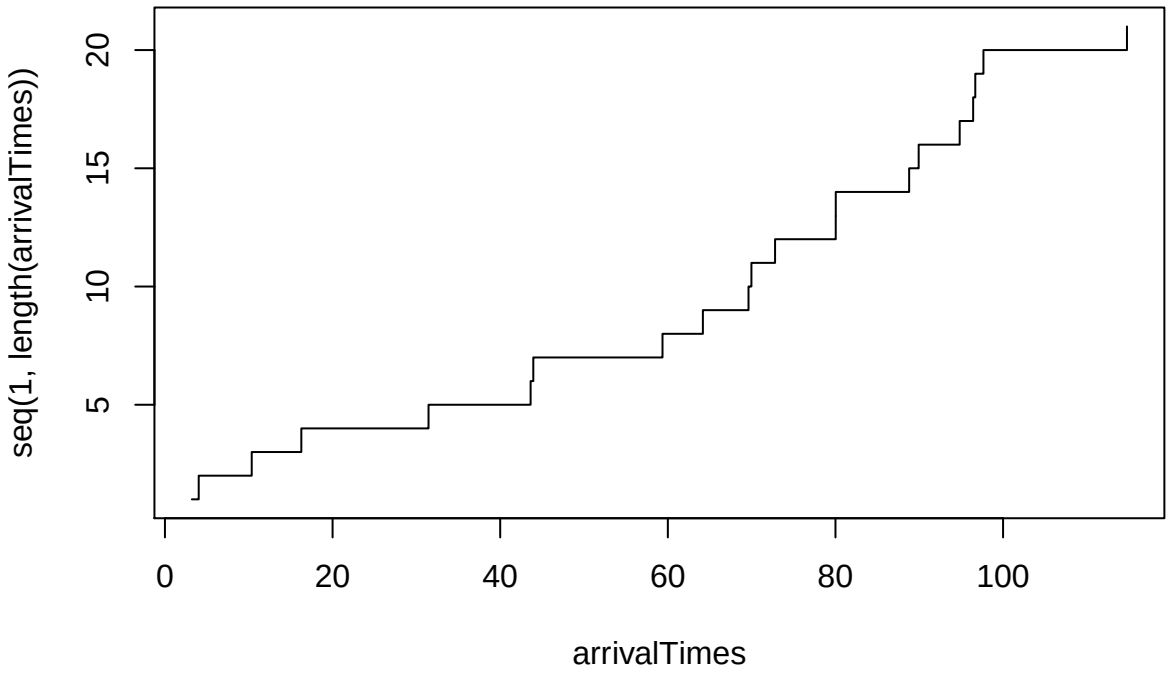
STAT 421 HW 10

Part a)

```
rateParam = 1/5

time <- 0
arrivalTimes <- NULL  #not the most efficient way to do this in terms of memory
while(time < 100)
{
    waitTime <- rexp(1, rate = rateParam)
    time <- time + waitTime
    arrivalTimes <- c(arrivalTimes, time)
}

plot(arrivalTimes, seq(1, length(arrivalTimes)), type = 's')
```



Part b)

The distribution of the number of arrivals should be a Poisson(20).

Part c)