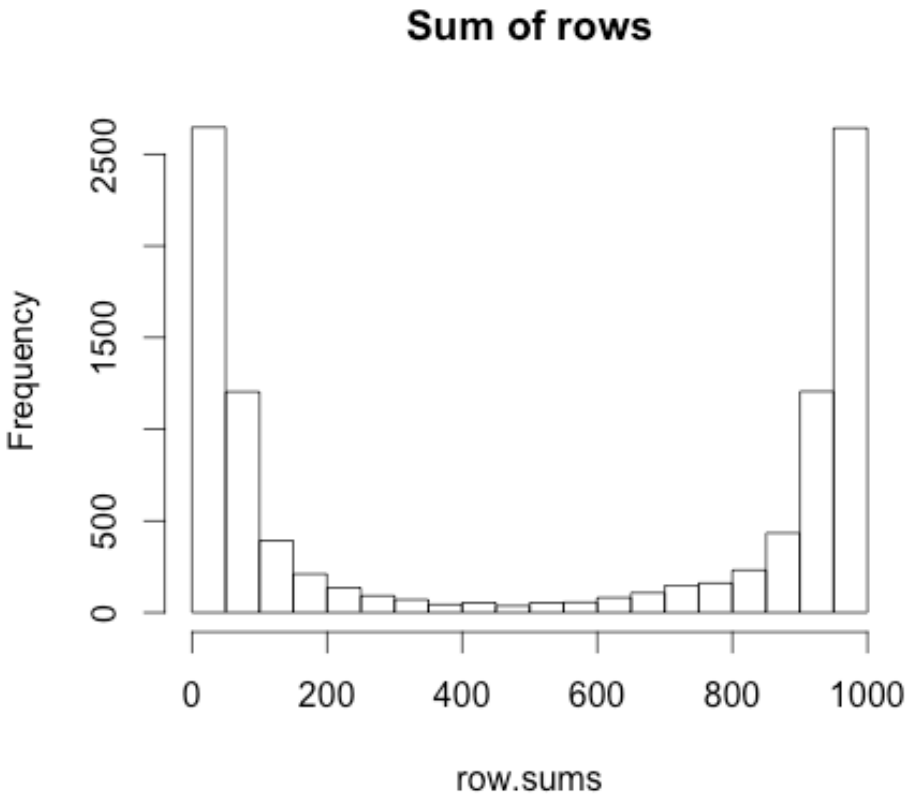
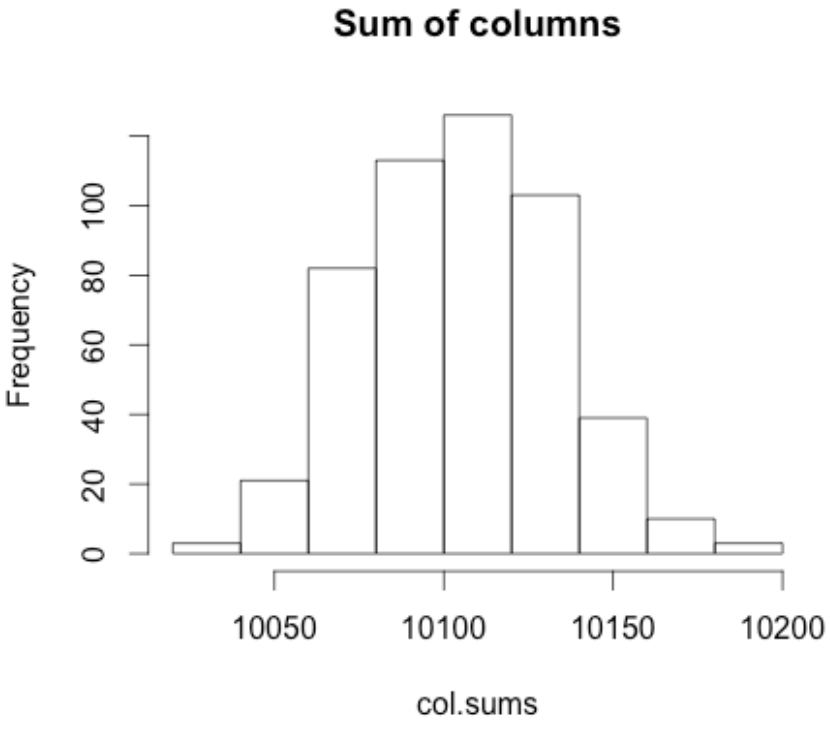
1. dat<-read.table("subdat.txt")
2. > dim(dat)
   [1] 10000   500
3. > range(dat)
    0 2
4. dat.mat<-matrix(dat)> hist(dat.mat)
5. idp<-
   read.table("http://www2.unil.ch/popgen/teaching/R14/indpopsurv.txt",
   header=T)
6. table(idp$pop)

   1A 1C 2A 2C 3A 3C 4A 4C 5A 5C
   50 50 50 50 50 50 50 50 50 50

   treat<-list("A"=0,"C"=0)
   treat$A<-idp$id[grep(pattern="A",idp$pop)]
   treat$C<-idp$id[grep(pattern="C",idp$pop)]
7. loc<-list("1"=0,"2"=0,"3"=0,"4"=0,"5"=0)
   loc[[1]]<-idp$id[grep(pattern="1",idp$pop)]
   loc[[2]]<-idp$id[grep(pattern="2",idp$pop)]
   loc[[3]]<-idp$id[grep(pattern="3",idp$pop)]
   loc[[4]]<-idp$id[grep(pattern="4",idp$pop)]
   loc[[5]]<-idp$id[grep(pattern="5",idp$pop)]
8. table(idppop,idpsurv)
       0 1
    1A 34 16
    1C 35 15
    2A 35 15
    2C 33 17
    3A 43 7
    3C 34 16
    4A 42 8
    4C 36 14
    5A 27 23
    5C 41 9
9. a<-idp$surv[grep(pattern="A",idp$pop)]
   cc<-idp$surv[grep(pattern="C",idp$pop)]
   Surviving, dead in A = c(length(a),length(a)-sum(a))
   250 181
   Surviving, dead in C = c(length(cc),length(a)-sum(cc))
   [1] 250 179
10. loc1<-idp$surv[grep(pattern="1",idp$pop)]
    loc2<-idp$surv[grep(pattern="2",idp$pop)]
    loc3<-idp$surv[grep(pattern="3",idp$pop)]
    loc4<-idp$surv[grep(pattern="4",idp$pop)]
    loc5<-idp$surv[grep(pattern="5",idp$pop)]
    c(length(loc1),length(loc1)-sum(loc1)) ;
    c(length(loc2),length(loc2)-sum(loc2))
    c(length(loc3),length(loc3)-sum(loc3))

```
    c(length(loc4),length(loc4)-sum(loc4))
    c(length(loc5),length(loc5)-sum(loc5))
11. names(dat)<-idp$id
12. datn<-matrix(nrow=nrow(dat), ncol=ncol(dat))
13. hist(datn)
14. row.sums<-c(rowSums(datn, na.rm=T))
    hist(row.sums)
    col.sums<- c(colSums(datn, na.rm=T))
    hist(col.sums)
```


Sum of rows
Frequency
0
500
1500
2500
0
200
400
600
800
1000
row.sums


Sum of columns
Frequency
0
20
40
60
80
100
10050
10100
10150
10200
col.sums

15.
16. tot.freq<-c(mean(row.sums)/2)
17. datn.C<-data.frame(dat[names(dat)==treat$C])
C.freq<- c(mean(rowSums(datn.C, na.rm=T))/2)