

HW1-Q1

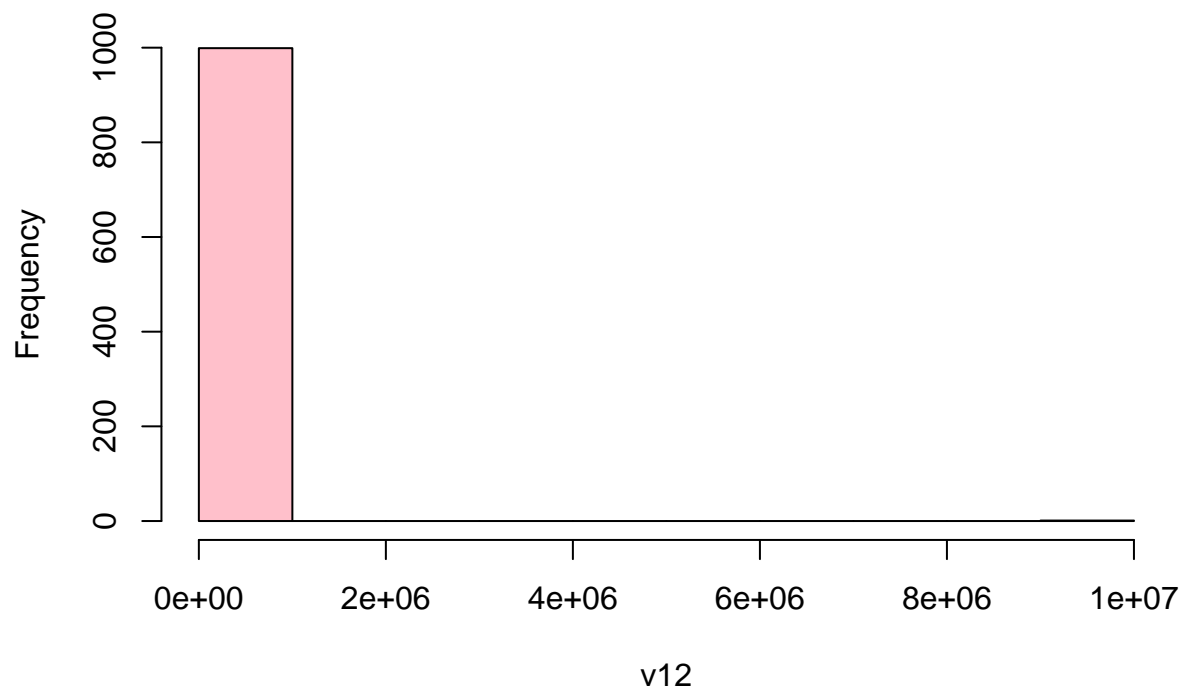
Zhaoqi Li

2023/1/24

Q1.b

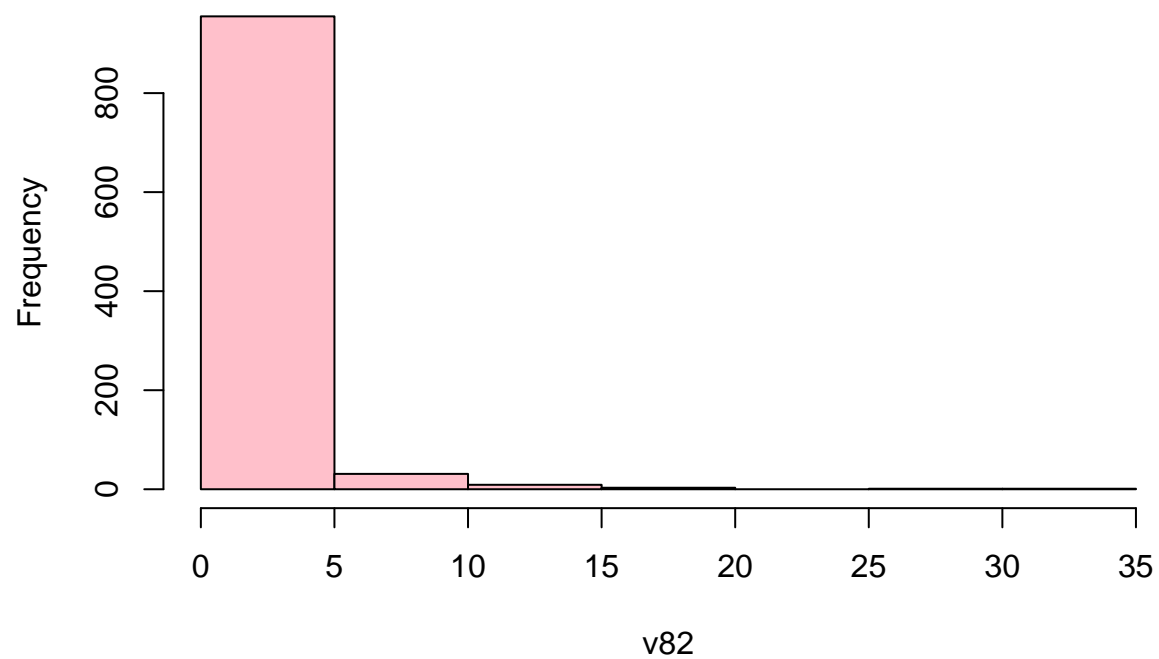
```
v1=rt(1000,1)
v12=v1^2
hist(v12,col = "pink")
```

Histogram of v12



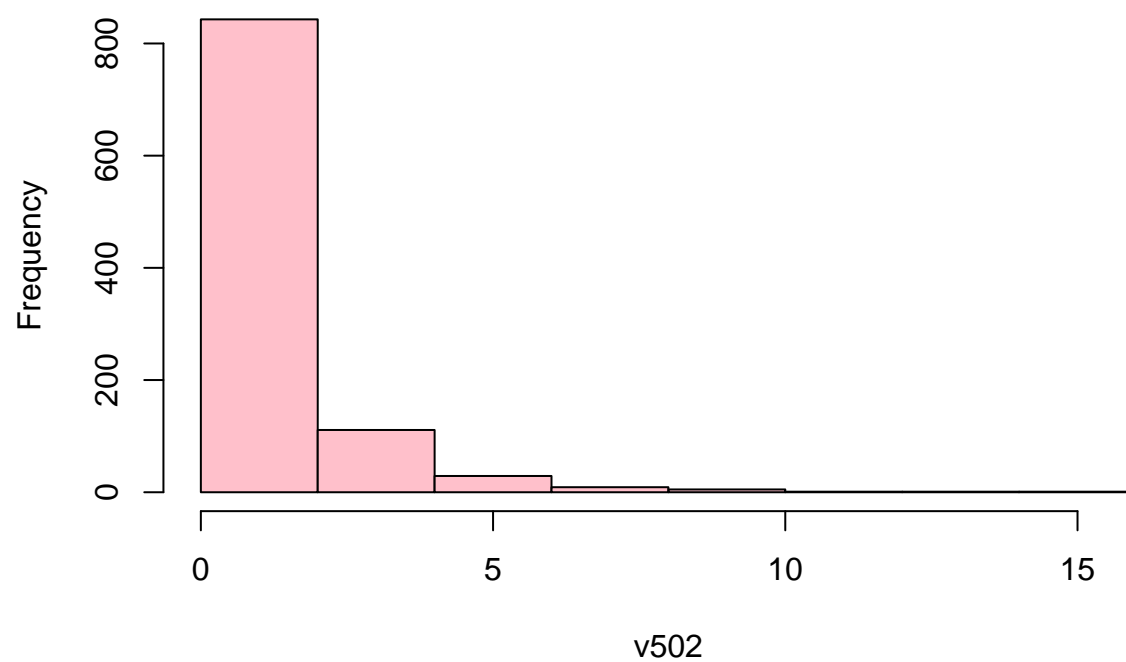
```
v8=rt(1000,8)
v82=v8^2
hist(v82,col = "pink")
```

Histogram of v82

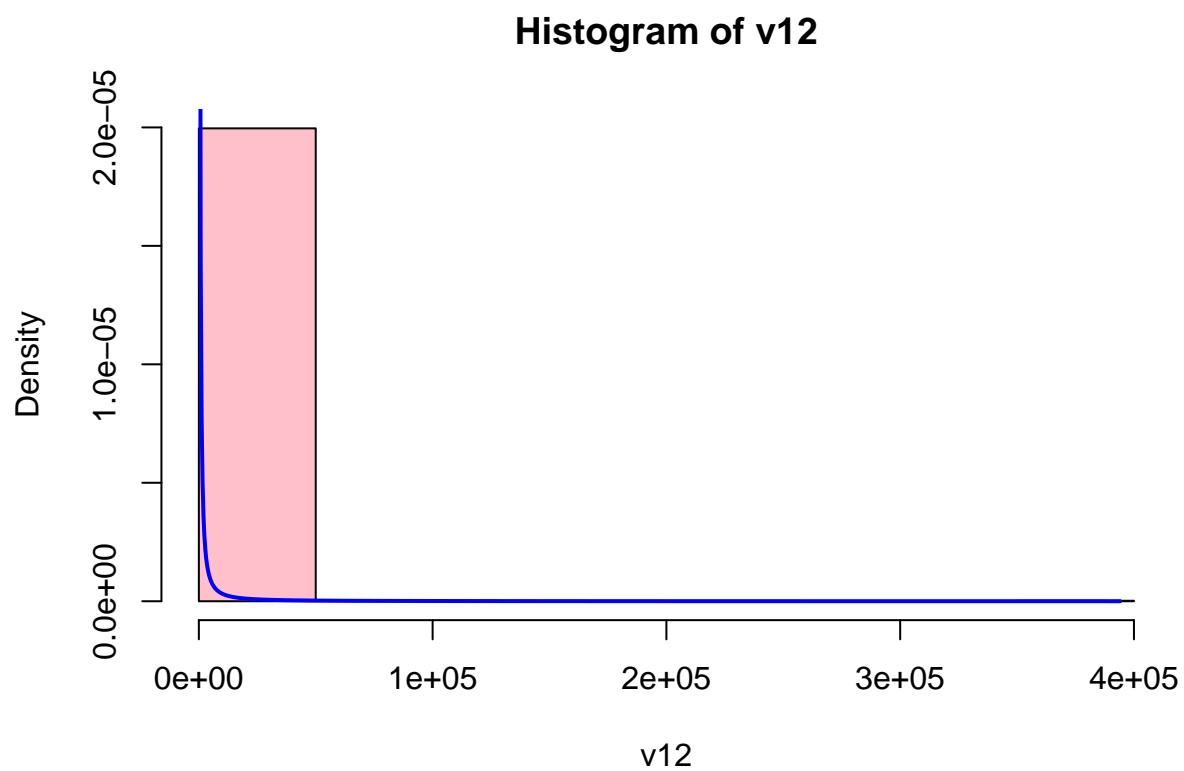


```
v50=rt(1000,50)
v502=v50^2
hist(v502,col = "pink")
```

Histogram of v502

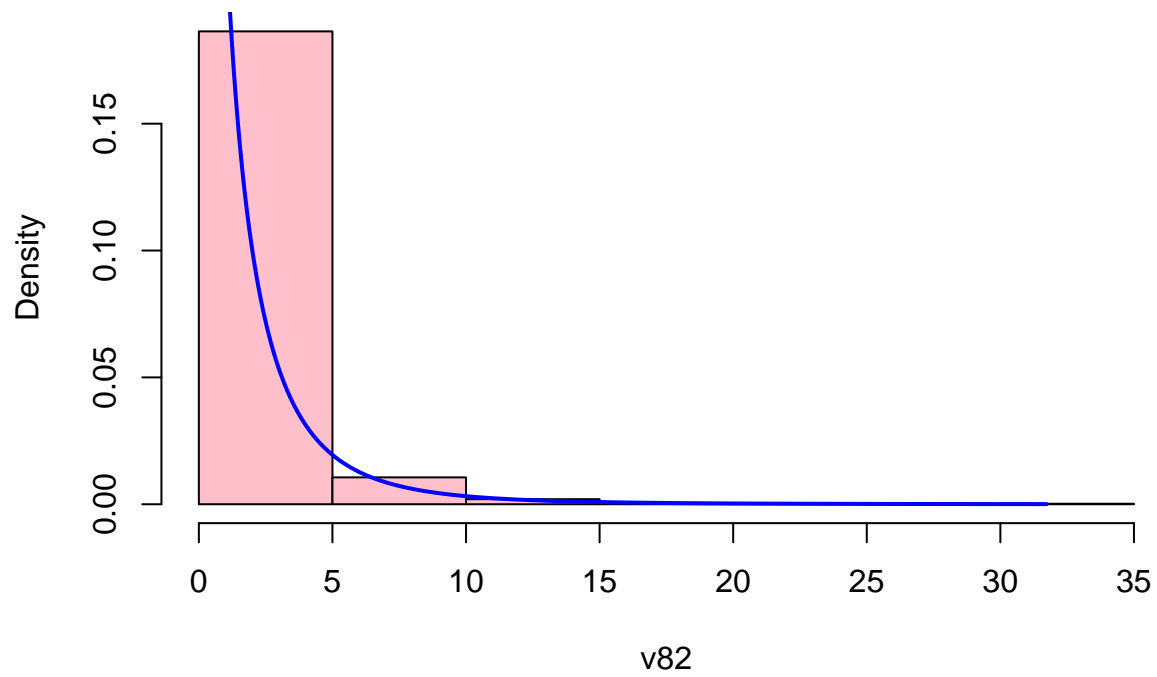


```
### Q1.c
v1=rt(1000,1)
v12=v1^2
hist(v12,prob=TRUE,col = "pink")
x1<-seq(min(v12),max(v12),length=1000)
lines(x1,df(x1,1,1),col="blue",lwd=2)
```



```
v8=rt(1000,8)
v82=v8^2
hist(v82,prob=TRUE,col = "pink")
x8<-seq(min(v82),max(v82),length=1000)
lines(x8,df(x8,1,8),col="blue",lwd=2)
```

Histogram of v82



```
v50=rt(1000,50)
v502=v50^2
hist(v502,prob=TRUE,col = "pink")
x50<-seq(min(v502),max(v502),length=1000)
lines(x50,df(x50,1,50),col="blue",lwd=2)
```

Histogram of v502

