Question 1

```
Fibonacci <- function(n){x=numeric(n)
    x[1] = 1
    x[2] = 1
    for (i in 3:n)
    x[i] = x[i-1] + x[i-2]
    return(x)}
```

Question 3

a.

```
dataset <- read.csv("PersonenSchaden.csv", header = TRUE)
```

b.

```
summary(dataset$total)
    var(dataset$total)
    sd(dataset$total)
```

c.

```
hist(dataset$total, xlab = "dollar values of claims",main = "Histogram of dollar values of claims",breaks = 200)
```

d.

```
hist(dataset$finmonth-dataset$accmonth ,xlab = "Settlement delay", main = "Histogram of settlement delay")
```

e.

```
hist1<- hist(dataset$legrep)
hist1$density=hist1$counts/sum(hist1$counts)
plot(hist1, xlab = "legal representation", ylab = "proportion", main = "Histogram of the legal representation", freq = FALSE)
```

f.

```
totalinjury <- rbind(dataset$inj1, dataset$inj2, dataset$inj3, dataset$inj4, dataset$inj5)
hist2<- hist(totalinjury)
hist2$density=hist2$counts/sum(hist2$counts)
plot(hist2, xlab = "injury code",ylab = "proportion", main = "Histogram of injury code", freq = FALSE)
```

h.

```
logclaims<- log(dataset$total)
hist(logclaims, xlab = "log dollar values of claims", main = "Histogram of log dollar values of claims")
```

i.

```
plot(dataset$op_time, dataset$total, xlab = "operational time",ylab = "claim size", main = "Claim size vs Operational time")
```

```
plot(dataset$op_time, dataset$total, xlab = "operational time",ylab = "log claim size", main = "Log claim size vs Operational time",log = "y")
```

k.

```
colour <- factor(dataset%legrep)
plot(dataset$op_time,dataset$total, xlab = "operational time", ylab = "log claim size", main = "Log claim size vs Operational time", col=colour,log = "y")
```