Practical 6

Calculation of Skewness

Ex.1. Find Pearson's first and second coefficients of skewness.

2,3,5,7,4,8,1

CODE:

```
x=c(2,3,5,7,4,8,1)
x
mean(x)
median(x)
mode = function(x) {
  uniqv = unique(x)
  uniqv[which.max(tabulate(match(x, uniqv)))]
}
mode(x)
sd(x)
sk1=(mean(x)-mode(x))/sd(x)
sk1
sk2=3*(mean(x)-median(x))/sd(x)
sk2
```

Ex.2. Enter the following table of three distributions f1, f2 and f3 for the variable X in EXCEL.

x	f1	f2	f3
0	10	1	1
1	5	2	2
2	2	14	2
3	2	2	5
4	1	1	10

Import the data in R and write and program to find Pearson's first and second coefficients of skewness.

CODE:

```
attach(Book1)
y=rep(x,f1)
y
z=rep(x,f2)
z
s=rep(x,f3)
s
mean(y)
median(y)
mode = function(y) {
        uniqv = unique(y)
        uniqv[which.max(tabulate(match(y, uniqv)))]
}
mode(y)
```

```
sk1=(mean(y)-mode(y))/sd(y)
sk1
sk2=3*(mean(y)-median(y))/sd(y)
sk2
mean(z)
median(z)
mode = function(z) {
   uniqv = unique(z)
   uniqv[which.max(tabulate(match(z, uniqv)))]
}
mode(z)
sk1=(mean(z)-mode(z))/sd(z)
sk1
sk2=3*(mean(z)-median(z))/sd(z)
sk2
mean(s)
median(s)
```

```
mode = function(s) {
    uniqv = unique(s)
    uniqv[which.max(tabulate(match(s, uniqv)))]
}
mode(s)
sk1=(mean(s)-mode(s))/sd(s)
sk1
sk2=3*(mean(s)-median(s))/sd(s)
sk2
```