Descriptive statistics for ungrouped data

Ungrouped frequency distribution

```
x=c(18, 19, 19, 19, 19, 20, 20, 20, 20, 20, 21, 21, 21, 21, 22, 23, 24, 27, 30, 36)
x
```

Twenty students graduates and undergraduates, wer enrolled in a statistics cours. Their ages were:

```
 [1] 18 19 19 19 19 20 20 20 20 20 21 21 21 21 22 23 24 27 30 36
```

```
#Median
me=median(x)
me
```

```
[1] 20.5
```

```
#Median age of all students under 25 years
y=x[x<25]
me1=median(y)
me1
```

```
[1] 20
```

```
#Frequency table
xt=table(x)
xt
```

```
x
18 19 20 21 22 23 24 27 30 36
 1  4  5  4  1  1  1  1  1  1
```

```
#Mode
Mode=which(xt==max(xt))
Mode
```

```
20
 3
```

```
#Mean
mn=mean(x)
mn
```

```
[1] 22
```

Two more students enter the class. Age of both the students is 19. Find Mean, Median and Mode of new data.

```
z=c(x,19,19)
z
```

```
 [1] 18 19 19 19 19 20 20 20 20 20 21 21 21 21 22 23 24 27 30 36 19 19
```

```
#Mean
newmn=mean(z)
newmn
```

```
[1] 21.72727
```

```
#Median
newmedian=median(z)
newmedian
```

```
[1] 20
```

```
#Frequency table
zt=table(z)
zt
```

```
z
18 19 20 21 22 23 24 27 30 36
 1  6  5  4  1  1  1  1  1  1
```

```
#Mode
newmode=which(zt==max(zt))
newmode
```

```
19
 2
```