

# More Functions

```
> x = c(10, 1, 3, 4, 7, 34, 23, 10, 0, 0); x  
[1] 10 1 3 4 7 34 23 10 0 0
```

## Order statistics /Вариационен ред/

sort returns the sorted vector.

```
> sort(x)  
[1] 0 0 1 3 4 7 10 10 23 34
```

## Minimal observation

min returns the smallest observation

```
> min(x)  
[1] 0
```

## Maximal observation

max returns the largest observation

```
> max(x)  
[1] 34
```

## Differences

diff returns the first differences

```
> diff(x)  
[1] -9 2 1 3 27 -11 -13 -10 0
```

with 'lag=2' returns the second differences

```
> diff(x, lag = 2)  
[1] -7 3 4 30 16 -24 -23 -10
```

## Cummulative sums /Кумулативни суми/

cumsum returns the cumulative sums

```
> cumsum(x)  
[1] 10 11 14 18 25 59 82 92 92 92
```

## Cumulative maximum /Кумулативни максимуми/

`cummax` returns the cumulative maximum

```
> cummax(x)
[1] 10 10 10 10 10 10 34 34 34 34 34
```

## Cumulative minimum /Кумулативни минимуми/

`cummin` returns the cumulative minimum

```
> cummin(x)
[1] 10 1 1 1 1 1 1 1 0 0
```

For the next tasks you need to see the difference between `sort` and `order`.