## Graphs with R

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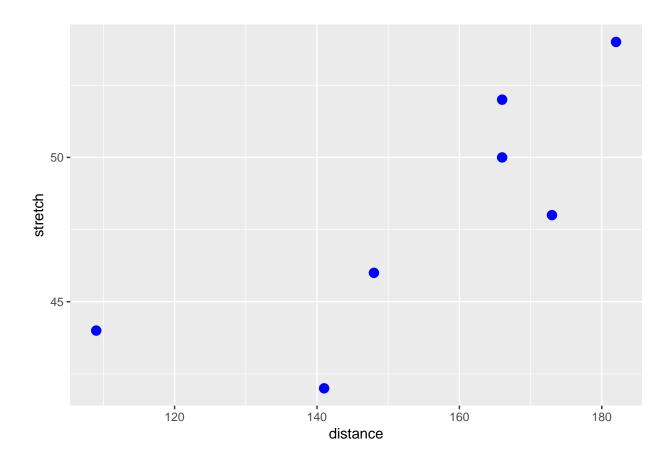
## Graphs with R: Exercises

First we need to load the ggplot2 library.

```
library(ggplot2)
```

## 1) Plot distance against stretch.

```
ex1 \leftarrow data.frame(stretch=c(46,54,48,50,44,42,52), distance=c(148,182,173,166,109,141,166))
ex1
##
     stretch distance
## 1
          46
                   148
          54
                   182
## 2
## 3
          48
                   173
## 4
          50
                   166
                   109
          44
## 6
          42
                   141
                   166
ggplot(ex1, aes(distance, stretch)) + geom_point(col="blue", size=3)
```

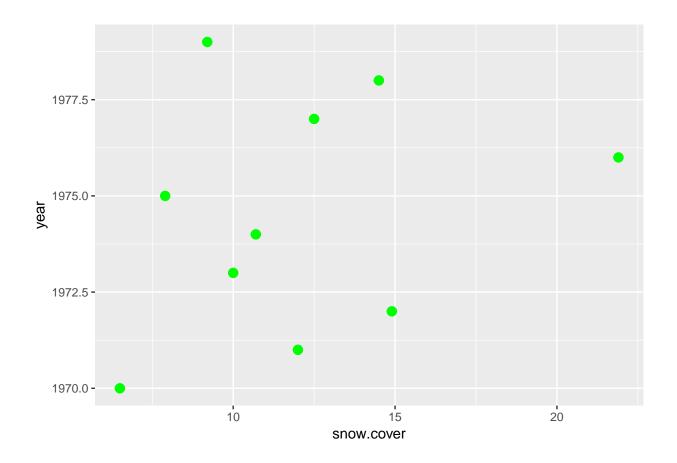


2) The follwing data have ten observations taken during the years 1970-79, on October snow cover for Eurasia (snow cover is in millions of square kilometers).

```
ex2 \leftarrow data.frame(year=c(1970:1979), snow.cover=c(6.5,12.0,14.9,10.0,10.7,7.9,21.9,12.5,14.5,9.2))
ex2
##
      year snow.cover
## 1
      1970
                  6.5
## 2 1971
                  12.0
## 3 1972
                 14.9
## 4
     1973
                  10.0
## 5
     1974
                  10.7
## 6
                  7.9
     1975
## 7
     1976
                 21.9
## 8
                  12.5
     1977
## 9 1978
                  14.5
## 10 1979
                  9.2
```

Plot snow.cover versus year.

```
ggplot(ex2, aes(snow.cover, year)) + geom_point(col="green", size=3)
```



## Plot a histogram of the snow.cover values.

```
ggplot(ex2, aes(snow.cover)) + geom_histogram(fill="green", col="darkgreen", bins = 4)
```

