

Getting started with R

- General information.
 - Information on how to download and install R can be found at <https://cran.r-project.org/>. Choose the base binaries for installation.
 - After launching R (running the “Rgui.exe”), a window will show up and commands can then be entered at the “>” prompt.
- R working directory.
 - At the R prompt, entering `getwd()` gives the R working directory.
 - At the R prompt, entering `list.files()` gives a list of files in the R working directory.
- Data input. If the data are stored in a text file in a table format, then they can be read into R using the “`read.table`” command.

Example 1. Read the data in the file

```
"https://stat.walkup.tw/teaching/statistics/data/exam1.csv"
```

into R and plot the histogram of the second column of data with break-points 0, 10, 20, ..., 100.

- Download the data file

```
"https://stat.walkup.tw/teaching/statistics/data/exam1.csv"
```

and save it in the R working directory.

- At the R command prompt, enter

```
x <- read.table(file="exam1.csv", sep=",")
```

Then the data are now read into `x`.

- To assign the second column of `x` to a vector `score`, enter

```
score <- x[,2]
```

at the R command prompt.

- To make a histogram for `score` with breakpoints 0, 10, 20, . . . , 100, enter

```
hist(score, seq(0,100, by=10))
```

- Making count tables and bar plots.

Example 2. Create bar plot for the variable “Species” in the iris data.

R commands:

```
counts <- table(iris$Species)
barplot(counts, main="Iris Species Distribution",ylab="Counts")
```