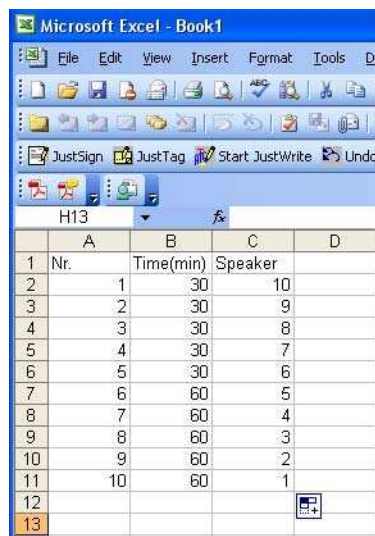# Assignment 1

due Tuesday Sept. 15, 2009 at the beginning of the class.

Please remember to email me or hand me a piece of paper with the name of the people who are in the same project group as you are. Only one email or piece of paper for each group is necessary.

The rest of the problems are due next Tuesday.

1. For this problem you need to figure out how to input data into R. Read the documentation on the functions **read.table**() and **read.csv**().

Figure 1: Excel file

(a) Using Excel create a table like in the Figure 1. Save the file as a comma separated (.csv file). Use the functions in R you have read about to input the numbers in R. Make sure you understand the "header" option

(b) From the CD accompanying the textbook find the file that contains the data in Table 1.9 from the book. Part of this assignment is to actually find and figure out yourself how to import the data into R.

2. For this problem you will need to use the data you just introduced into R or a piece of paper and a crayon. It will be much easier using R. Refer to problem 1.37 in your textbook (page 38) for this problem.

(a) Answer part (a) of the problem 1.37 in the book.

(b) Answer parts (b) (c) and (d) of the problem replacing stemplots with histograms. In part (d) create histograms on top of each other instead of back to back stemplots. Consult your R manual about how to do this (or have a look at the code I posted on elearn). Output and include the images with your assignment. Alternately, using a calculator answer these points and create histograms yourself.

3. Answer the questions in problem 1.58 (page 59). Use R to create the boxplots. As an example the following code:
   >**boxplot**(Weight~Type)
   >**title**("Weight␣by␣Vehicle␣Types")
   uses two variables: one categorical "Type" and one quantitative "Weight" and produces the following plot:

Weight by Vehicle Types