1. Write a function which get a list of numbers as an argument and returns their average

2. Write a function which gets two arguments: (a) a list of numbers, and (b) a number N. The function must split the input list into N lists and return the as a list of lists.

3. Write a master/slave program similar to the one of Exercise 9.2. In particular, write a program which creates and kills slave processes. Modify the \{\texttt{send}, \texttt{X}\} so that \texttt{X} is a list of numbers. The master sends \texttt{X} to all slave processes. The slave processes compute the average, print the result and send the result back to the server.

4. Finally, modify the master so that it splits the input list into N lists where N is the current number of slave processes. Then the master sends each sublist to each slave process. Each slave must compute the average of each list, print and return the partial result. Once all slave processes are done, the master collects all the partial results into a single list, computes the final average and prints it.

\textbf{Note:} To make things more clear, put the implementations of (c) and (d) in separate files. Also, when printing messages, add in the beginning of the message \texttt{[MASTER]} or \texttt{[SLAVE]} to indicate which process prints what.