In the name of God

## Department of Physics Shahid Beheshti University

## ADVANCED METHODS ON COMPUTATIONAL PHYSICS

## Exercise Set 2

(Date Due: 1398/12/22)

- 1. Error analysis and propagation: Using the input file, write a bash file with proper program file to do following tasks:
  - $\mathbf{A}$ : Read input data file which contains more than  $10^6$  one-column data. and spilt it to 100 input files.
  - **B**: Making directories and send each data set to corresponding directory.
  - ${f C}$ : Compute mean, variance and mean standard deviation of each data set. And write them in a file which contains the label of data, mean, standard deviation and mean standard deviation. Finally plot them.

Good luck, Movahed		