In the name of God

## Department of Physics Shahid Beheshti University

## COMPUTATIONAL PHYSICS

## Exercise Set 2

## (Date Due: 1396/11/30)

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.  $\mathbf{B}$ : Making directories and send each data set to corresponding directory.

 $\mathbf{C}$ : 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