

In the name of God

Department of Physics  
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COMPUTATIONAL PHYSICS

Exercise Set 1

(Date Due: 1396/11/20)

1. Bash file experiences: According to presented subjects regarding to Bash file and by using *listarrange* and *data* files, write a bash file for following tasks:

**A** : Loops.

**B** : Making directory and file.

**C** : Reading from file and writing in another file.

**D** : Run a simple program.

2. Rounding error in computer: Suppose to have single precision for floating point representation. In this case compute  $5.5+10^{-8}=?$  (Hint: to this end use floating point representation and then add two representations).

3. Floating point representation:

**A** : For Single precision paradigm, compute minimum and maximum values of a positive number (except to "0" and "+∞")

**B** : For Double precision paradigm, compute minimum and maximum values of a positive number (except to "0" and "+∞")

Good luck, Movahed

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