In the name of God

Department of Physics
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COMPUTATIONAL PHYSICS

Exercise Set 1

(Date Due: 1397/07/22)

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

Good luck, Movahed

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