Programming and MatLab

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MatLab & Programming

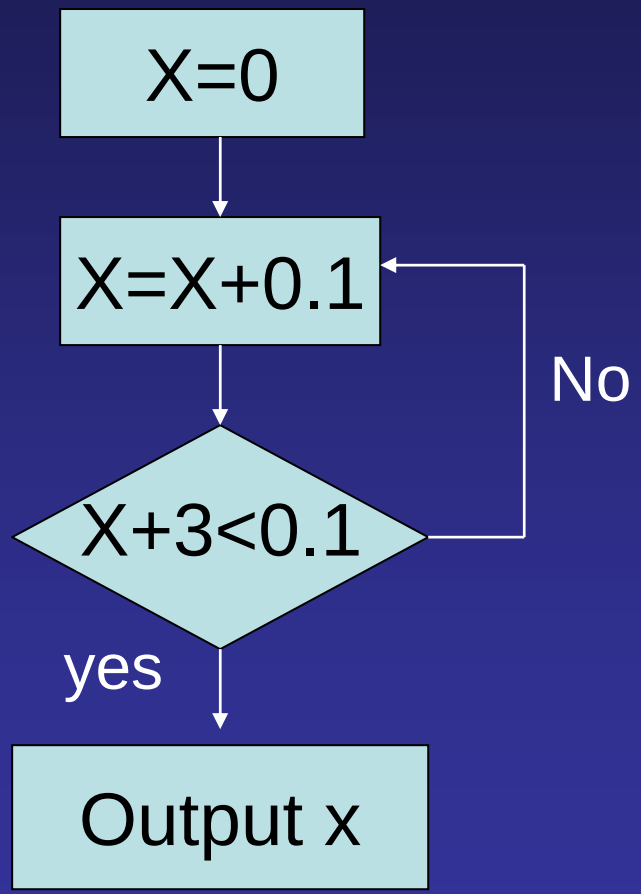
Computation

1+2=3

sin(30)=0.5

$$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} = \begin{bmatrix} 7 & 10 \\ 15 & 22 \end{bmatrix}$$

Programming



Syllabus – Programming and MatLab

Feb 9	Introduction and Overview
Feb 16	Lab 1: MatLab interface and matrix manipulation
Feb 23	Lab 2: Conditionals I
Feb 02	Lab 3: Conditionals II
Mar 09	Lab 4: Functions I
Mar 16	Lab 5: Functions II
Mar 23	Lab 6: Algorithm
Mar 30	Lab 7: ODE1
April 6	Lab 8: ODE2
April 13	Lab 9: Eigenvalue problems
April 20*	Lab 10: Project
April 27	Lab 11: Project
May 4	Lab 12: Project
May 11	Lab 13: Project

Computation Lab Structure

(1) Lab Assignments – you will be given an exercise to do during laboratory period. You must email the TA the solutions before you leave the lab. It is vital that you first read the assigned reading before the lab session. We are here to help but not write the codes for you.

(2) Computation based homework problems

(3) Project – In 4 lab sections, you will write a comprehensive program to perform simulation of the dynamics of a system. A list of possible projects with explanations will be posted later in the semester.

The computation assignments are a significant Portion of your homework grade!!!