A Review

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What we've learned - numerical methods

Search for roots

Solve a linear system of equations

Solve eigenvalue problems

What we've learned - Python programming

Programming environment

- OS: Windows/Linux,
- IDE: Jupyter Lab/PyCharm/VS Code

Programming style

- module programing, OOP
- usage of space
- comments: single line `#` , muptiple lines `'''`
- naming variables: xxx__xxx
- . . .

strings, lists, arrays

input and output

conditions and loops

plotting

functions

numerical routines - Scipy

numerical routines - Numpy

Your review

Group Nr.	Numerical Methods	Python Programming	Example	Scripts
1	bisection method			
2	secant method			
3	brute force method			
4	Newton’s method for single-variable functions			
5	Newton’s method for systems of nonlinear equations			
6	Thomas method			
7	Jacobi method			
8	Gauss-Seidel method			

Group Nr.	Numerical Methods	Python Programming	Example	Scripts
9	conjugate gradient method			
10	power method			
(optional)	fixed point method			
(optional)	Gauss elimination method with pivoting			
(optional)	LU decomposition			
(optional)	QR decomposition with Householder reflections			
(optional)	SOR method			