Computational Physics 2016

General instructions:

Please upload all the tasks in studentportalen. One per group is sufficient. All the group members' names should exist in each task. Students who don't have access to studentportalen should send me the tasks by email. For every task, one week is allowed for completing and uploading.

Tasks

Chapter 1:
Recreate Table 1.1 (symmetric 3 point, forward 2 points and backward 2 point)
Recreate Table 1.3 (Trapezoidal and Simpson)
Recreate Table 1.4 (Search, Newton, Secant)

Chapter 2:
Recreate Table 2.1 (Euler, Taylor and Implicit methods)
Exercise 2.1 for any one of the methods mentioned above
Exercise 2.4
Exercise 2.5 (home exercise)

Chapter 3:
Recreate Table 3.1 (Analytical, 5 % error and linear correction)
Exercise 3.1 (home exercise)
Exercise 3.2 (home exercise)