Applications of Algorithms
Assignment 4

(A) The first part of your assignment is to write solutions to the following exercises from the textbook:

33.1-1, 33.1-2, 33.1-3

(B) The second part of your assignment is to code up the algorithm GRAHAM-SCAN in Chapter 33 of the textbook. The algorithm should be coded from scratch following the methods described in the textbook.

Run simulations of your algorithms to get empirical evidence that the running time of GRAHAM-SCAN is $\mathcal{O}(n \log n)$.

You must submit the following:

(1) Your source code for the algorithms (using C, C++, Java or python).
(2) A document with a graph illustrating the results of the above simulations, together with a description of how the graphs were obtained, including a description of how you generated the input sets of points.

You must submit your files to the AA Moodle page by **Tuesday, November 9**, at **23h00**.