

Boğaziçi University
Department of Physics

Phys 499

Spring 2007

Problem Set #1
Due in class Wednesday, 7 Mar 2007

Reading:

Problem 1:

Modify the pseudocode on page 17 such that it sorts in decreasing order.

Problem 2:

Assume that an algorithm requires $O \approx A \times n^k$ operations at large n . If the numbers of all operations for this algorithm for the given set of problem-size are as follows:

n	Ops
10	114
20	394
50	2341
100	7899
200	29785
500	188380
1000	767940

find k .

Problem 3:

Exercise 2.2-2 on page 27 of Cormen. (Selection sort.)

Problem 4:

Exercise 2.2-4 on page 27 of Cormen.