Fall 1996 **CMSC 251: Homework 8** Samir Khuller

Due in class: Nov 12.

(1) Problem 8.2-4 (page 160).

(2) This question is regarding RANDOMIZED-PARTITION (page 162).

Instead of first swapping $A[p]$ with $A[i]$ where i was a randomly chosen index, ($p \leq i \leq r$) and then calling PARTITION(A,p,r), we could simply modify PARTITION (page 154) so that $x \leftarrow A[i]$ where i was a randomly chosen index, ($p \leq i \leq r$). Does the algorithm on page 162 (as described in the book) still work?

(3) Problem 8.3-4 (page 163).

(4) Problem 9.2-3 (page 177).