Homework 5, Due Wednesday October 13

1. Exercise 10.3-8, page 192.
2. Exercise 10.3-9, page 192.

   The optimal location is at the median of the y–coordinates of the oil wells. Prove why.
3. Given a (not necessarily sorted) sequence $S = \{k_1, k_2, ..., k_n\}$ of n arbitrary numbers. Consider the collection C of n^2 numbers of the form: $\min\{k_i, k_j\}$, for $1 \leq i, j \leq n$. Present an $O(n)$–time and $O(n)$–space algorithm to find the median of C.

Homework 6, Due Wednesday October 20

1. Exercise 14.2-5, page 267.
2. Problem 14-2, pages 278-279.
3. Given an array A of n elements, and an array B of m elements, how would you find $A \cap B$? Report your running time in terms of n and m.