

CS / MCS 401 Week #8-9 Exercises (Fall 2007)

Exercise M. Say *partition()* is applied to an array a of size n , with distinct elements. Let us say that *partition()* produces a bad split if either the left or the right subarray has size less than $n/4$. What is the probability of a bad split if we choose the pivot element as

- a) a single random element from a
- b) the median of three distinct random elements of a ?
- c) the median of five distinct random elements of a ?
- d) the median of seven distinct random elements of a ?

Exercise 9.3-1

Exercise 9.3-8