

# Fundamental Algorithms

## Exercise 1

– obsolete –

## Exercise 2

Consider a partitioning algorithm that, in the worst case, will partition an array of  $m$  elements into two partitions of size  $\lfloor \epsilon m \rfloor$  and  $\lceil (1 - \epsilon)m \rceil$ , where  $\epsilon$  is fixed, and  $0 < \epsilon < 1$ . Show that a quicksort algorithm based on this partitioning has a worst-case complexity of  $O(n \log n)$ .