

## HOME WORK ASSIGNMENT#2

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Due Date: OCT 23, 2006 (5x100=500 points)

CS 4/56101 DESIGN & ANALYSIS OF ALGORITHM

Spring 2006, Department of Math and Computer Science, Kent State University

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Submit any unfinished problem of earlier assignment plus the following:

1. R-4.5
2. R-4.9
3. R-4.11
4. R-4.14
5. Show on average Quicksort performs the following order of comparisons (you can use the method used in class notes to count the number of swaps):

$$C_{avg}(n) = 2n \ln n + O(n) \approx 1.39n \log n + O(n)$$