

CS 499 (Fall 2006)- Assignment 8

Due: Thursday, 11/02/2006

- (1) Implement both the Divide&Conquer algorithm and the “Compare all pairs” algorithm for finding the closest pair of points in the 2-dimensional plane. (Do use $n \log n$ sorting for the pre-computing step of Divide&Conquer.) Run them both on data sets of $n = 2 \dots 10000$ or more points, and plot the running times (in seconds, or milliseconds) for both, as a function of n . At what point does Divide&Conquer beat brute force?