APPENDIX B – Charts corresponding to Question 6 on the project report

Comparison of Bruteforce Runtime in Lab vs Home PC

- Bruteforce Runtime on Home PC
- Bruteforce Average Runtime in CS Lab

X-axis: Number of random points compared
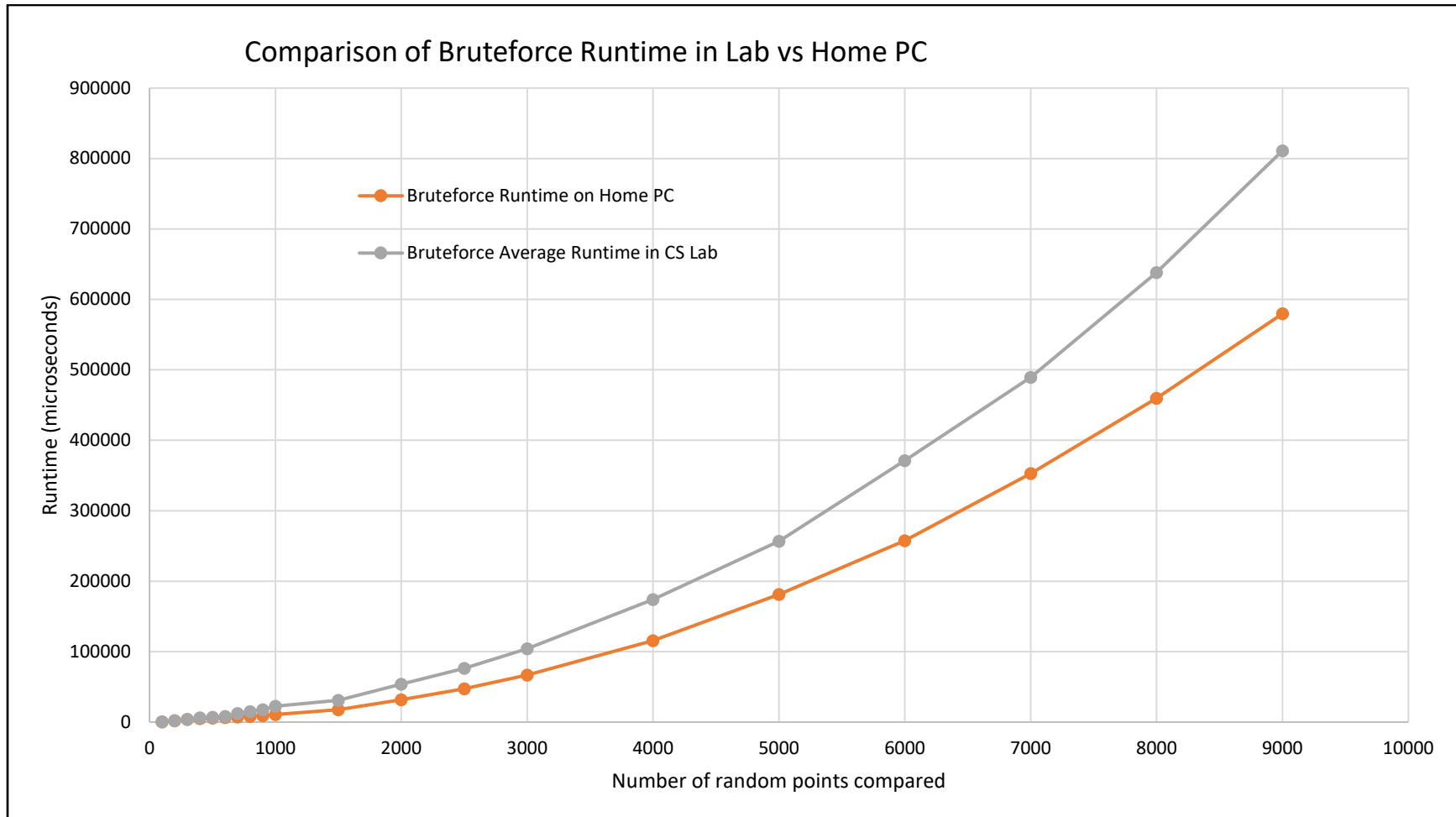Y-axis: Runtime (microseconds)

Figure 1 – A comparison of bruteforce runtimes from a CS lab PC to a powerful home PC. The home PC ran only one data set whereas the CS machine gives the average over four sets. The input points generated by the home PC are not the exact same as used in the CS machine tests. The input points for the home PC are the same for bruteforce and divide and conquer. The home pc is running Linux Mint 19.1. The input point n=10000 was excluded from the chart for viewability but the trend continues at the exact same rate.
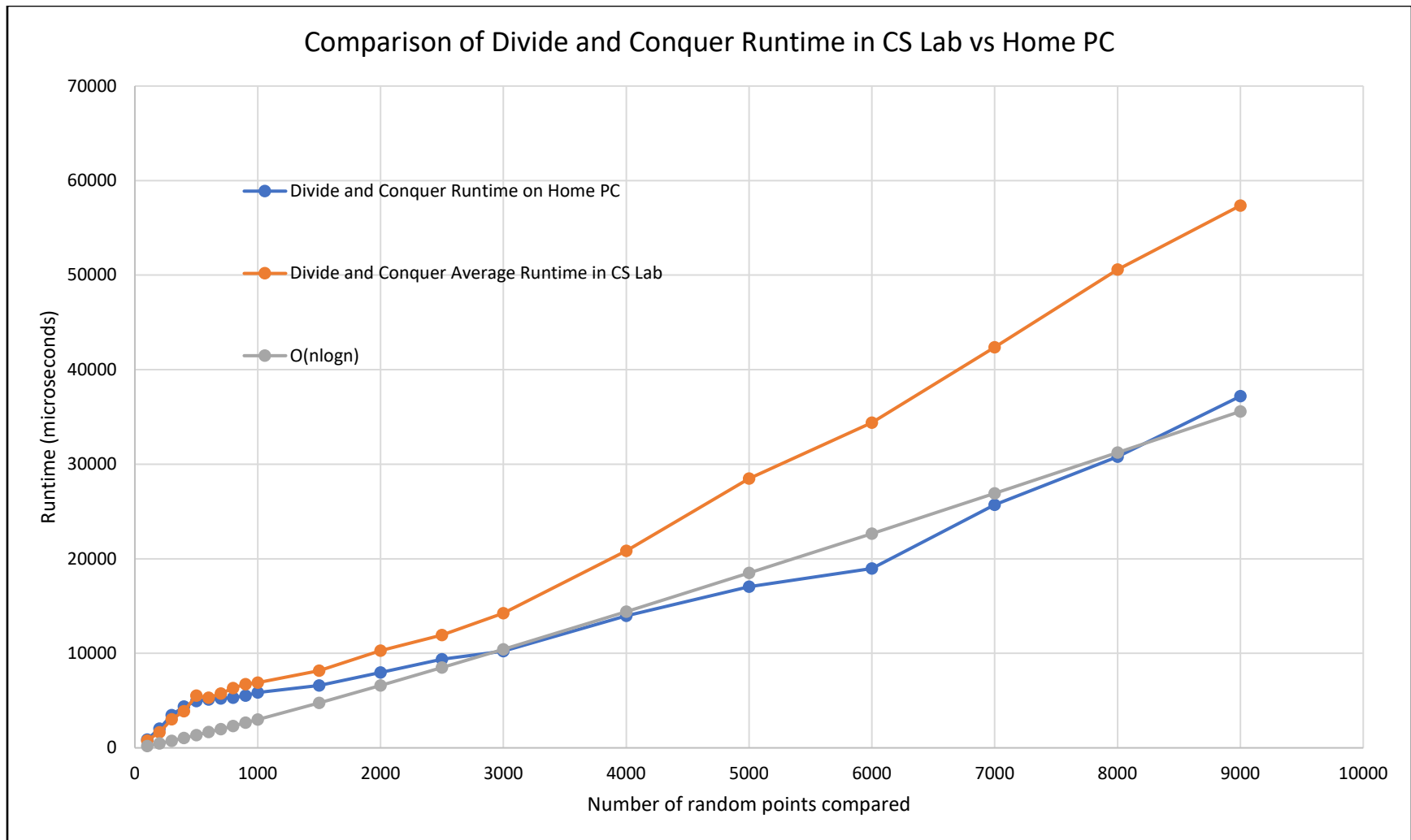
Figure 2 – A comparison of divide and conquer runtimes from a CS lab PC to a powerful home PC. The home PC ran only one data set whereas the CS machine gives the average over four sets. The input points generated by the home PC are not the exact same as used in the CS machine tests. The input points for the home PC are the same for bruteforce and divide and conquer. The home pc is running Linux Mint 19.1. The input point n=10000 was excluded from the chart for viewability but the trend continues at the exact same rate.