COMP 301

Analysis of Algorithm Lab 3 Report

Q1.

1. Elapsed time in nanoseconds for original merge sort: 29247600
2. Elapsed time in nanoseconds for improved merge sort with max\_level=13: 18725500

Max level: 1, Elapsed time in nanoseconds: 19072100

Max level: 2, Elapsed time in nanoseconds: 13873700

Max level: 3, Elapsed time in nanoseconds: 16400200

Max level: 4, Elapsed time in nanoseconds: 8512500

Max level: 5, Elapsed time in nanoseconds: 8072000

Max level: 6, Elapsed time in nanoseconds: 7910600

Max level: 7, Elapsed time in nanoseconds: 8020400

Max level: 8, Elapsed time in nanoseconds: 8653200

Max level: 9, Elapsed time in nanoseconds: 9168300

Max level: 10, Elapsed time in nanoseconds: 7877200

Max level: 11, Elapsed time in nanoseconds: 7874200

Max level: 12, Elapsed time in nanoseconds: 7891400

Max level: 13, Elapsed time in nanoseconds: 7753000

Max level: 14, Elapsed time in nanoseconds: 9089600

Max level: 15, Elapsed time in nanoseconds: 7853800

Max level: 16, Elapsed time in nanoseconds: 9028500

Max level: 17, Elapsed time in nanoseconds: 9058700

Best max level: 13, Min elapsed time in nanoseconds: 7753000