COMP 301 Analysis of Algorithms

Lab 6 Report



b. The multiplication of given matrices , is given below:

The result for 1(a):

18 14

62 66

c. **Time for multiplication of 16x16 matrices: 2063582600 ns**

d. **Time for multiplication of 64x64 matrices: 201939278500 ns**

It takes approximately 98 times slower compared to the 16x16 matrix multiplication.

e. **Time for multiplication of 16x16 matrices using square matrix multiplication: 176800 ns**

Square matrix multiplication is nearly 11500 times faster than the Strassen method. Because Strassen’s algorithm improves the time complexity of large matrices and the size of the matrices are not large enough.

f. **Time for multiplication of 64x64 matrices using square matrix multiplication: 5505200 ns**

Square matrix multiplication is nearly 36500 times faster than the Strassen method. As in part (e), the size of the matrix is not large enough.