CSCI203 Algorithm and Data Structures Lab Assg 7 July Session 2019

Objectives

- To be able to solve problem for long integer multiplication
- To be able to apply Karatsuba method
- To practice writing solutions to problems in a clear and succinct way

Problem

Long integer multiplication could be generalized using problem decomposition strategy. One of the popular method to multiply two n-digit number is Karatsuba. We can multiply two integers in less time complexity. We divide the given numbers in two halves. Let the given numbers be X and Y. Write a code to show how to implement Karatsuba. Show all working and output for each part of multiplications.

Submission

Upload ZIP/RAR document titled yourname_W13_L7 into the correct submission folder in Moodle before 11pm Malaysian time. Late submission will not be accepted.

Your document should contain your source code, screen shots and other necessary files. Show your code and output during lab to receive your marks.

Marking Criteria

(1 mark for correctness, function as required, input/output 1 mark for efficiency, validation, readability, display format)