



National University

of computer and emerging sciences

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Question 1

Suppose a programmer writes matrix multiplication code. In their first attempt, he uses a single thread to perform the multiplication. In their second attempt, he uses $n \times n$ threads to perform the multiplication. In their third attempt, he uses two threads where the first thread solves the first $n/2$ matrix, and the second thread solves the remaining $n/2$ matrix.

Rank the attempted solutions based on their performance in terms of the time taken to execute the matrix multiplication.

Question 2

Write a program in C language that declares an array of size 10. Prompt the user to input values into the array and ensure that they only enter values between 1 to 9. Once the input is taken, create a thread function that takes the array as an argument and checks which entry is repeated twice. You are not allowed to use any type of search.

GOOD LUCK