

CSC6013 - Worksheet for Week 6

Russian Peasants Multiplication

1. Trace the Russian Peasants Multiplication algorithm for the following products. Show each recursive call and the final result, as shown in the live session (table).
 - a. $64 * 13$
 - b. $60 * 13$
 - c. $59 * 13$

Lomuto partition

2. Trace the Lomuto partition with the array:
 - a. $A = [100, 33, 22, 213, 65, 29, 153, 199, 47, 181, 85]$

Using $A[10] = 85$ as pivot the final array will be:

- $A = [33, 22, 65, 29, 47, 85, 153, 199, 100, 181, 213]$

In your trace, write down to each change in either i or j , stating: the values of i and j , swaps made, and elements divided into lesser than the pivot, greater than the pivot, and yet to compare.