Laboratory 6

The aim of the exercise is to compare two different loop transformation (parallelization) techniques.

Part 1.

a. **Write a sequential program with the loop in which exist dependence cycles with distances 3 and 6.**
b. **Parallelized this program (loop) using Loop Shrinking and Loop Partitioning – Node Splitting transformation, respectively**
c. **Run both of yours parallel programs using the different numbers of cores and different numbers of processors (only one core from each processor)**
d. **Calculate the speedup received in all cases**

Part 2.

a. **Write a sequential program with the loop in which exist dependence cycles with distances 2, 3.**
b. **Parallelized this program (loop) using Loop Shrinking and Loop Partitioning – Node Splitting transformation, respectively**
c. **Run both of yours parallel programs using the different numbers of cores and different numbers of processors (only one core from each processor)**
d. **Calculate the speedup received in all cases**