<u>Programming Assignment 5-1:</u> Two-Way F-M Circuit Partitione

Problem Descriptions:

Given a net-list for a circuit, partition the circuit to two subcircuits *A* and *B* so that the cut-set of subcircuits *A* and *B* is minimized under the constraint of $|size(A) - size(B)| < \frac{1}{100} \cdot n$.

Input format:

A list of nets. Each net statement starts with the keyword "NET" and the name of the net. The cells that are connected by the net are listed between a pair of braces following the net name.

Example:

NET n1 c2 c3 c4 NET n2 c3 c7 NET n3 c3 c5 c7 NET n4 c1 c3 c5 c7 NET n5 c2 c4 c8 NET n6 c4 c6 NET n7 c2 c6 c8

Output format:

Report the cells in each group and the cut-size. The format is free. Example:

Group A = c1 c3 c5 c7Group B = c2 c4 c6 c8Cut-size = 1

Grading:

Your grade depends on the correctness, and runtime of your program. You may first compress all of the source code and execution file and then email your homework to TA before the deadline (please specify your student ID in the subject). The implementation details and your comments about this homework should be written in a simple report and mailed to TA together.