Lab #1
Signal Flow Graphs

Given:

Signal flow graph representation of the system. Assume that total number of nodes and numeric branches gains are given.

Required:

1- Graphical interface.
2- Draw the signal flow graph showing nodes, branches, gains, …
3- Listing all forward paths, individual loops, all combination of *n* non-touching loops.
4- The values of Δ , Δ_1 , …, Δ_m where *m* is number of forward paths.
5- Overall system transfer function.

Notes:

Each team must submit the following:

a- Your executables and source code
b- Report should include:
   1) Problem Statement.
   2) Main Features of the program and additional options if exists.
   3) Data Structure.
   4) Main modules.
   5) Algorithms used.
   6) Sample runs.
   7) Simple user guide.

- Use any programming language you want.
- **You can work in teams of a maximum of five students.**