Beneficiary Accounts

Think of a scenario where people want some money for their needs, they take loan on interest from others. When a person B takes loan from another person A, then we say B is beneficiary of A. If a person C takes loan from another person B, then B is a beneficiary for B and also for A.
We define the term Beneficiary of a person A as a loan taker from A or a loan taker from one of A's beneficiaries.

Given (A, B) as the input then B is the9o beneficiary of A, i.e B took loan from A.
Given (A,B), (B,C), (C,D), then B is beneficiary of A, C is beneficiary of A and B and D is beneficiary of A,B and C.
Given (A,B), (B,C), (C,D),(D,A) then B is beneficiary of A,B,C and D, C is beneficiary of A,B,C and D, D is beneficiary of A,B,C and D and A is beneficiary of A,B,C and D.
If A is beneficiary to A itself, then we say A is self beneficiary.

Given a set of beneficiary tuples, find and print the list of self beneficiaries in ascending order.

Input

First line contains the number of persons.
Second line contains the number of beneficiary tuples.
From the third line, beneficiary tuples follows which are separated by comma and space enclosed in brackets.

Output

Self beneficiaries in ascending order.
If no self beneficiaries, print the message "No Self Beneficiaries." without quotes.

Sample Input - 1

5
4
0 1
1 2
2 3
3 0

Sample Output - 1

0, 1, 2, 3

Sample Input - 2

4
3
0 1
1 2
2 3

Sample Output - 2

No Self Beneficiaries.