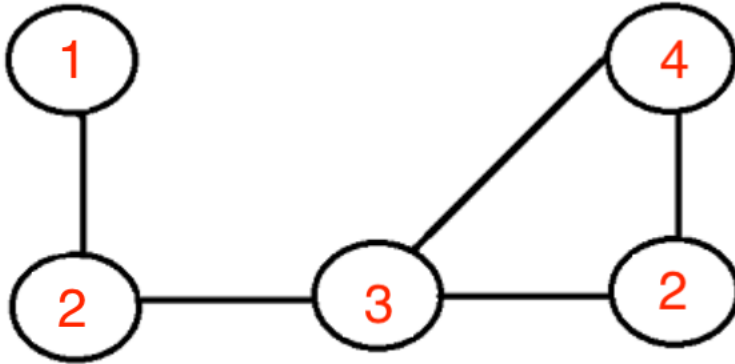


The format for the input to your program should be the list of the edges, each in one line.  
For example for below graph the input will look like (you may use \* as a sign showing the end of the input):



Input:

1,2

2,3

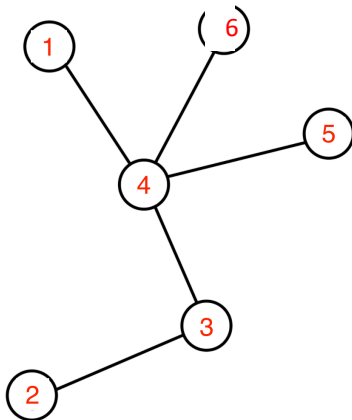
3,4

4,2

2,3

\*

Similarly, for below graph



The input will be:

1,4

6,4

5,4

3,4

2,3

\*