**Algorithms with Java: Exam Preparation**

This document defines the exam preparation for ["Algorithms – Fundamentals (Java)" course @ Software University](https://softuni.bg/trainings/2991/algorithms-fundamentals-with-java-may-2020). Please submit your solutions (source code) of all below described problems in [Judge](https://judge.softuni.bg/Contests/Practice/Index/2481#2).

# 3. Molecules

*You are part of science team which is on an exploration mission in newly discovered planet inhabiting the goldilock zone of a distant star (insert random digits as name here).*

You have found a peace of tissue which consist of different molecules connected in order.

The biology team want from you do develop a program which **by given molecule as a source determines to which other molecules there is no way to transport energy**. On the way to any other molecule you **may have to pass through other molecules etc**.

Print on a new line separated by spaces print the **numbers of molecules you cannot transport energy to from the start molecule**. Print them in **increasing** order.

## Input

The input will come from the console:

* On the first line the number of molecules **N**
* On the second line the number of connections between the molecules **M**
* On each **M** line the data describing the connections:

**{fromMolecule} {toMolecule}**

* On the next line single integer the start molecule number

## Output

* On the single output line print the molecules in **increasing order** to which there is no connection from start molecule.

## Constraints

* All input lines will be **valid integers you do not need to check that.**
* The range of the integers will be in the range **[1…1000]**
* The molecules number will be numbers from one increasing for each molecule.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 8  9  1 2  1 3  2 5  2 4  3 4  4 5  3 6  5 6  7 8  1 | 7 8 |
| 11  11  1 5  1 4  5 7  7 8  8 2  2 3  3 4  4 1  6 2  9 10  11 9  6 | 9 10 11 |

# *"The Cosmos is all that is or ever was or ever will be."*