# Problem 4 - Greatest Strategy

You are very enthusiastic strategist. You have a map of Counter-Strike and you think you know how to help your teammates win.

All areas of the map are connected and there is exactly one path between any two areas (there are no cycles). Each area is numbered from **1 to N** and the **squad starts in one of the areas**.

Your strategy is very simple - **separate the map into as much sections as you can** so that **each section has an even number of areas** and then **find the most valuable section to control**.

Splitting always **starts from the given starting area** of the squad. Splitting the map is done by barricading a path (removing a connection).

The value of an area is calculated by summing the Ids of all areas within a section.

## Input

* On the first input line, you will be given **N** (the number of areas), **E** (the number of connections) and **S** (squad starting area)
* The next **E** lines contain the connections between areas

## Output

* Print the value of the most valuable area after splitting the map **into as much separate sections that have even number of areas**.

## Constraints

* The number of nodes will be an even integer in the range **[2…100]**
* Time limit: **150 ms**. Allowed memory: **16 MB**.

## Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** |  |
| 10 9 1  2 1  3 1  4 3  5 2  6 1  7 2  8 6  9 8  10 8 | 33 |  |