

# Problem 10 – Tennis

You are given a group of **players** who wish to play tennis. Two players can only play together if they **like each other**. We are given **all pairs of players who like each other** want to play together. Each player can play with at most one other player. Find the **distribution of players into couples**, which maximizes the number of **games**.

## Input

- The input is read from the console.
- On the first line there is the word **“People:”** followed by all player names, each on a separate line.
- At the next line there is the word **“Connections:”** followed by all player connections. A connection between two people means that they can play against one another. The connections are given in format **“Player1 - Player2”** each on a separate line.
- At the last line of the input the word **“END”** will come, which indicates the end of the input.

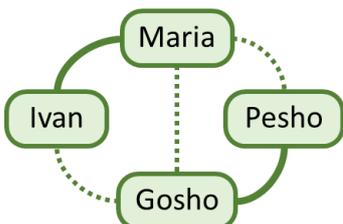
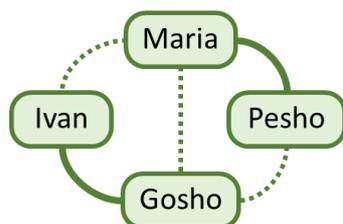
## Output

- Print the **number of couples** in the maximal distribution.

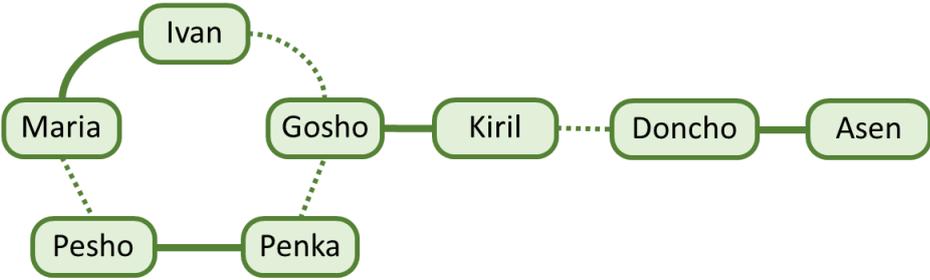
## Constraints

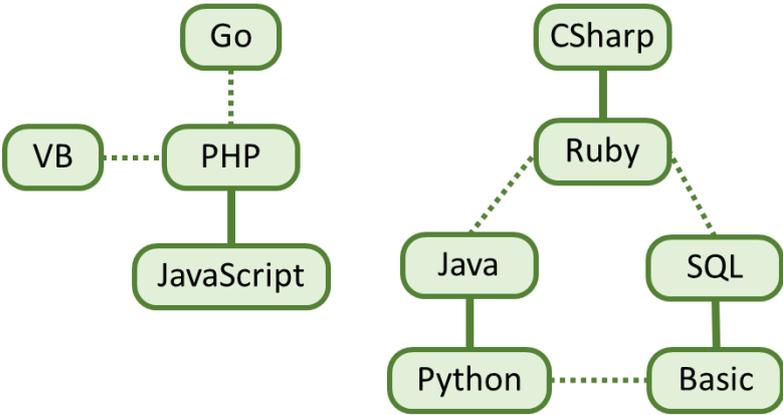
- The player **names** contain only Latin letters (case-sensitive) and digits.
- The number of **players** is in the range [1...500].
- The number of **connections** is in the range [1...10000].
- Time limit: **200 ms**. Allowed memory: **24 MB**.

## Sample Input and Output

| Input  | Output | Explanations   |
|--|--------|--|
| People:<br>Pesho<br>Maria<br>Ivan<br>Gosho<br>Connections:<br>Pesho - Gosho<br>Maria - Ivan<br>Ivan - Gosho<br>Pesho - Maria<br>Maria - Gosho<br>END | 2      | There are two maximal distributions and each of them holds 2 couples of players: <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">   </div> |

| Input | Output | Explanations |
|-------|--------|--------------|
|-------|--------|--------------|

|  |   |   |
|--|---|---|
| <p>People:<br/>Pesho<br/>Maria<br/>Ivan<br/>Gosho<br/>Penka<br/>Kiril<br/>Doncho<br/>Asen</p> <p>Connections:<br/>Pesho - Maria<br/>Maria - Ivan<br/>Ivan - Gosho<br/>Gosho - Penka<br/>Penka - Pesho<br/>Gosho - Kiril<br/>Kiril - Doncho<br/>Doncho - Asen<br/>END</p> | 4 | <p>Sample distribution of players that have the maximal number of couples – 4:</p>  |
|--|---|---|

| Input  | Output | Explanations   |
|--|--------|--|
| <p>People:<br/>Go<br/>VB<br/>PHP<br/>JavaScript<br/>CSharp<br/>Ruby<br/>Java<br/>SQL<br/>Python<br/>Basic</p> <p>Connections:<br/>Go - PHP<br/>PHP - VB<br/>PHP - JavaScript<br/>CSharp - Ruby<br/>Java - Ruby<br/>Java - Python<br/>SQL - Basic<br/>Ruby - SQL<br/>Basic - Python<br/>END</p> | 4      | <p>Sample distribution of players that have the maximal number of couples – 4:</p>  |