# Problem 10 – Tennis

You are given a set of players who wish to play tennis against one another. Two players can only play together if they like each other. Each player can play with at most one other player. Find the distribution of players 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.
* After all the player names on 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 the format: **Player1 - Player2** each on a separate line.
* On the last line of the input will be the word **END** signaling 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 **people** is in range [1… 500].
* The number of **connections** is in the range [1… 10000].
* Time limit: **100 ms**. Allowed memory: **16 MB**.

## Sample Input and Output

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| --- | --- | --- |
| **Input** | **Output** | **Explanation** |
| People:  Pesho  Maria  Ivan  Gosho  Connections:  Pesho - Gosho  Maria - Ivan  Ivan - Gosho  Pesho - Maria  Maria - Gosho  END | 2 | There are two possible maximal distributions. Each of them contains two players.  E:\Soft Uni\Soft Uni Problems\problem 10 new\Problem 10 Tennis\Test01-2.png  E:\Soft Uni\Soft Uni Problems\problem 10 new\Problem 10 Tennis\Test01-1.png |

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| **Input** | **Output** | **Explanation** |
| People:  Pesho  Maria  Ivan  Gosho  Penka  Kiril  Doncho  Asen  Connections:  Pesho - Maria  Maria - Ivan  Ivan - Gosho  Gosho - Penka  Penka - Pesho  Gosho - Kiril  Kiril - Doncho  Doncho - Asen  END | 4 | E:\Soft Uni\Soft Uni Problems\problem 10 new\Problem 10 Tennis\Test02-2.png |