

## 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.

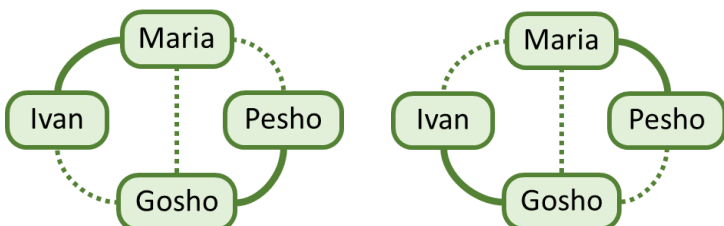
### Output

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

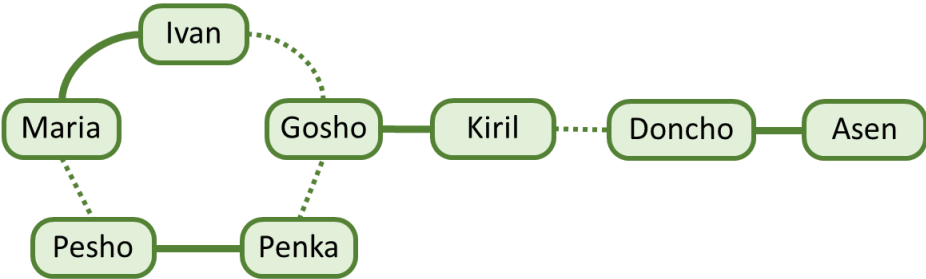
### Constraints

- 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: Pesho Maria Ivan Gosho Connections: Pesho - Gosho Maria - Ivan Ivan - Gosho Pesho - Maria Maria - Gosho END	2	There are two maximal distributions and each of them holds 2 couples of players: 

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