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Segapotoa blacklist*5 points***Introduction**

Segapotoa is a new operating system for smartphones, which is trying to disrupt the market. As a new employee you have just been handed the problem of the spam calls, which for sure will bother the users of Segapotoa. In order to avoid that, a new functionality has to be developed. Thus, it is necessary to compare the incoming calls with a defined blacklist in order to know if it is a spam call.

Input

The first input of the program is a predefined list of blacklisted phone numbers separated in different lines and finishing with a 0. The second input is the number of the incoming call. The phone number will follow the Spanish nomenclature, that is to say, only digits will be allowed and at most 9 of them.

Output

The output will be 1 if the incoming call is in the blacklist and 0 otherwise.

Example 1**Input**

937116189

689303064

943282927

0

1004

Output

0

Example 2**Input**

937116189

689303064

943282927

112

0

689303064

Output

1