

Problem H

Lucky Number

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

At a computer forum, a lottery game has been organized to create a fun atmosphere for participants. Each participant is given a piece of paper with a positive integer N (with $N \leq 10^{100}$). The organizers will then randomly choose a number M (with $1 \leq M \leq 9$).

Each player will perform a simple calculation: sum all the digits of the number N to obtain a new number N_1 . They will continue summing the digits of N_1 to get N_2 , and this process will be repeated until they receive a number that has only one digit. If this final number equals M , the player will receive a prize from the organizers.

Your task is to program a solution to determine who the lucky winners are among the participants.

Problem Requirements: You need to perform the following steps:

1. Read the number of participants K and the number M .
2. For each player, perform the digit sum process to find the final number.
3. Compare the final number with M to determine if the player is lucky to win a prize.
4. Print the results for each player.

Input Structure:

- The first line contains two positive integers K and M (with $K \leq 1000$).
- The next K lines each contain a positive integer N (with $N \leq 10^{100}$).

Output Structure:

- The output will consist of K lines, each containing the number 1 if the corresponding player drew the lucky number, otherwise, it will contain the number 0.

Example:

INPUT	OUTPUT
3 6	1
12345	1
6	0
123456789	