**02-线性结构4 Pop Sequence (25 分)**

Given a stack which can keep *M* numbers at most. Push *N* numbers in the order of 1, 2, 3, ..., *N* and pop randomly. You are supposed to tell if a given sequence of numbers is a possible pop sequence of the stack. For example, if *M* is 5 and *N* is 7, we can obtain 1, 2, 3, 4, 5, 6, 7 from the stack, but not 3, 2, 1, 7, 5, 6, 4.

Input Specification:

Each input file contains one test case. For each case, the first line contains 3 numbers (all no more than 1000): *M* (the maximum capacity of the stack), *N* (the length of push sequence), and *K* (the number of pop sequences to be checked). Then *K* lines follow, each contains a pop sequence of *N* numbers. All the numbers in a line are separated by a space.

Output Specification:

For each pop sequence, print in one line "YES" if it is indeed a possible pop sequence of the stack, or "NO" if not.

Sample Input:

5 7 5

1 2 3 4 5 6 7

3 2 1 7 5 6 4

7 6 5 4 3 2 1

5 6 4 3 7 2 1

1 7 6 5 4 3 2

Sample Output:

YES

NO

NO

YES

NO