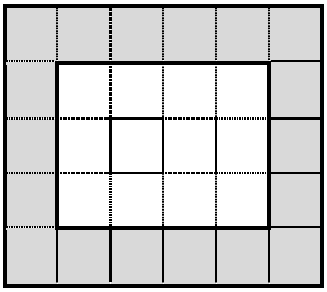
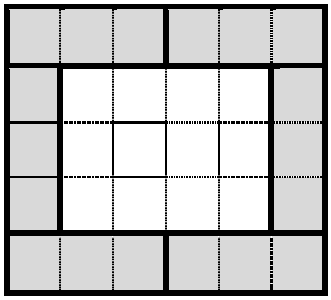
Problem D
Frame

Input File: D.in
Output File: standard output
Program Source File: D.c, D.cpp, D.java

Let's consider a $X \times Y$ rectangle with the middle $(X - 2) \times (Y - 2)$ rectangle cut out. We will call this figure a frame with size $X \times Y$. Picture 1 shows the frame 5×6.



Picture 1. Frame 5 × 6



Picture 2. Frame 5 × 6, paved with tiles 3 × 1

Let's assume that we have unlimited number of tiles with size $A \times 1$. We consider the following problem: is it possible to completely pave a frame with size $X \times Y$ using these tiles (tiles can be rotated by 90 degrees). For example, frame 5×6 from Picture 1 can be paved completely with tiles of size 3×1 (one way to do so is shown in Picture 2), but can't be paved with tiles of size 4×1.

Input
The first input line contains 2 integers – X and Y ($3 \le X \le 10^6$, $3 \le Y \le 10^6$). The second line contains integer N – the number of tile types to be analyzed ($1 \le N \le 1000$). Each of following N lines contains one integer, not exceeding 10^6. We designate with A_K the integer on the $(K+2)$-th line of the input file.

Output
Your goal is to print N lines, where the K-th line should contain the word "YES", if it is possible to tile the frame with size $X \times Y$ with tiles $A_K \times 1$, and the word "NO" otherwise.

Sample input	Sample output
5 6 2 3 4	YES NO