Statement

Given a string of digits and an integer n, write a program that checks if it is possible to introduce the symbols + and - before each digit of the sequence so that doing the operations indicated, the final result is n.

For example, it is possible to achieve it if the sequence is 1234567 and n = -2,

$$- 1 + 2 - 3 - 4 + 5 + 6 - 7 = - 2$$

but it is not possible to achieve if the sequence is 1234567 and n = 1.

Input

An arbitrary amount of cases (no more than 100), each one of them is formed by a sequence of digits (no more than 100) and an integer n between - 1000 and 1000.

Output

For each case, write one line with yes or no depending on if it is possible or not.

Examples

Input 1	**Output 1**
5 5	yes
5 -5	yes
5 0	no
111 -1	yes
111 1	yes
111 2	no
111 3	yes
725 20	no
725 21	no

Input 2	**Output 2**
1234567 -2	yes
1234567 18	yes
1007007 11	no
1000001 2	yes
1000001 3	no

Input 3	**Output 3**
1234567890123456789 2	yes
1234567890123456789 3	no