

Problem

You are given a bipartite graph $G = (U, V, E)$, and an integer K . U and V are the two bipartitions of the graph such that $|U| = |V| = N$, and E is the edge set. The vertices of U are $\{1, 2, \dots, N\}$ and that of V are $\{N + 1, N + 2, \dots, 2N\}$. You need to find out whether the total number of different perfect matchings in G is strictly greater than K or not.

Recall that a perfect matching is a subset of E such that every vertex of the graph belongs to exactly one edge in the subset. Two perfect matchings are considered to be different even if one edge is different.

###Input

First line of the input contains three integers: N , M and K , which represent $|U|$ (which is also equal to $|V|$), $|E|$ and the queried threshold respectively. The i -th of the next E lines contains two numbers L_i and R_i which denote the i -th edge is between the vertices L_i and R_i .

###Output

A single line containing "Yes" if the number of perfect matchings is greater than K , and "No" otherwise.

###Constraints

- $1 \leq N \leq 100$
- $1 \leq M \leq 600$
- $0 \leq K \leq 10^5$
- $1 \leq L_i \leq N < R_i \leq 2 * N$

###Subtasks

###Subtask 1 (10 Points):

- $K = 0$

###Subtask 2 (30 Points):

- $1 \leq N \leq 50$
- $1 \leq M \leq 100$
- $0 \leq K \leq 300$

###Subtask 3 (60 Points):

- No further constraints.

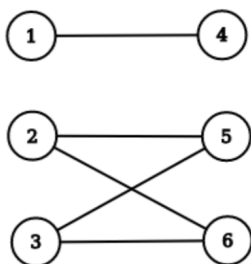
###Sample Input 1 3 5 2 1 4 2 6 2 5 3 5 3 6

###Sample Output 1 No

###Sample Input 2 3 5 1 1 4 2 6 2 5 3 5 3 6

###Sample Output 2 Yes

###Explanation: *Explanation 1:* The graph is as follows:



There are exactly two perfect matchings in this graph: $\{(1, 4), (2, 5), (3, 6)\}$ and $\{(1, 4), (2, 6), (3, 5)\}$. The number of perfect matchings is not $> K$, and hence the output is "No".

Explanation 2: The graph is the same as previous one, and the same 2 perfect matchings are present. But now, K is 1. Therefore, the number of perfect matchings is $> K$, and hence the output is "Yes".