

Clique Separation

Problem

Let \mathbf{G} be the set of di-graphs with n nodes, m edges and maximum clique (complete subgraph) size of k nodes, determine whether it is possible to divide every element of \mathbf{G} into two disjoint sets of nodes, such that the largest size of a clique contained in one set is equal to the largest size of a clique contained in the other set.

The Input

Each line of input has $n \leq 1000$, $m \leq 1000000$, $k \leq n$, listed in that order.

The Output

For each line of input, output "yes" if it is possible, "no" if it is not possible.

Sample Input

```
10 99 8
9 80 3
```

Sample Output

```
yes
no
```