

# 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
```