

Simple MST

Time limit : 2 sec

Memory Limit : 256 MB

Problem Statement

You are given a weighted undirected graph not necessarily connected with N nodes and M edges. You are required to generate a spanning tree of total weight not more than K . You can update the weight of any edge to 1. Your goal is to generate a valid spanning tree in the minimum number of updates. If it is not possible to create a valid spanning tree, print -1.

Print the minimum number of updates required to create a valid spanning tree.

Input

The first line of input: N ($1 \leq N \leq 10^6$), M ($1 \leq M \leq 10^6$), K ($1 \leq K \leq 10^{18}$).

Each of the next M lines contains 3 integers u_i, v_i, w_i indicating that there is a bidirectional edge from u_i to v_i of weight w_i . ($1 \leq i \leq M$), ($1 \leq u_i, v_i \leq N$), ($1 \leq w_i \leq 10^6$)

Output

A single integer denoting the number of updates required.

Sample Input 1

```
3 3 5
1 2 2
2 3 4
3 1 6
```

Sample output 1

```
1
```