

Very Important Edge

Time limit: 3 seconds

You are given a simple connected graph where each edge is assigned a non-negative weight. Recall that a minimum spanning tree of a graph is a connected, acyclic subset of the edges of the graph with minimum total weight. Find an edge which maximizes the minimum spanning tree weight of a given graph if that edge is deleted. It is guaranteed that the input graph remains connected after deleting any one edge.

Input

The first line of input contains two integers n ($3 \leq n \leq 10^5$) and m ($3 \leq m \leq 10^6$), where n is the number of vertices and m is the number of edges in the input graph. The vertices are numbered from 1 to n .

Each of the next m lines contains three integers a , b ($1 \leq a < b \leq n$) and w ($1 \leq w \leq 10^6$). This denotes an edge between vertices a and b with weight w .

Output

Output a single integer, which is the minimum spanning tree weight of the input graph after the right edge is deleted.

Sample Input 1

3 3 1 2 1 2 3 2 1 3 2	4
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Sample Output 1

Sample Input 2

4 5 2 3 5 1 2 2 1 3 4 1 4 2 3 4 3	10
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Sample Output 2

Sample Input 3

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5 7
2 5 8
1 3 19
4 5 9
1 5 15
1 2 14
3 4 16
2 4 15
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Sample Output 3

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54
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