

Graph Theory 4

Time Limit: 4.0s **Memory Limit:** 64M

Given a connected graph of N nodes and M weighted bidirectional edges, print the maximum Greatest Common Divisor (GCD) of the weights of the edges of any connected subgraph. A connected subgraph is a graph such that there is at least 1 path between any two nodes, and all edges in the subgraph are in the original graph.

Input Specification

The first line will contain two integers, N, M ($2 \leq N \leq 10^4, 1 \leq M \leq 10^5$).

The next M lines will each contain three integers, u, v, w ($1 \leq u, v \leq N, u \neq v, 1 \leq w \leq 10^3$). There may be more than one edge between any two nodes.

Output Specification

Output the maximum GCD of the weights of the edges of any subgraph that can be constructed with the M edges.

Sample Input

```
4 5
1 3 3
3 4 8
1 4 4
1 2 6
2 4 12
```

Sample Output

```
4
```