CSE 208

Online MST

Date: 01/06/2022

B1/B2

Destroy Roads Let's consider some weird country with n cities and m bidirectional roads of 3 types. It's weird because of some unusual rules about using these roads: men can use roads of types 1 and 3 only and women can use roads of types 2 and 3 only. Write a program to find the maximum number of roads possible to destroy so that the country will be still connected for both men and women.

Input The first line contains 2 space-separated integers: *n* and *m*. Each of the following m lines contains the description of an edge: three different space-separated integers: *a, b* and *c. a* and *b* are different and from *1* to *n* each and denote indices of vertices that are connected by this edge. *c* denotes the type of this edge.

Output For each test case output one integer - maximal number of roads possible to destroy or -1 if the country is not connected initially for both men and women.

Constraints

- 1 <= n <= 1000
- 1 <= m <= 10 000
- 1 <= a, b <= n
- 1 <= c <= 3

Sample Input

5 7

1 2 3

2 3 3

3 4 3

5 3 2

5 4 1

5 2 2

1 5 1

Sample Output 2