Time: 25 Minutes
Minimum Product Spanning Tree

Given a connected and undirected graph, a spanning tree of that graph is a subgraph that is a tree and connects all the vertices together. A single graph can have many different spanning trees. A minimum product spanning tree for a weighted, connected and undirected graph is a spanning tree with weight product less than or equal to the weight product of every other spanning tree. The weight product of a spanning tree is the product of weights corresponding to each edge of the spanning tree. All weights of the given graph will be positive for simplicity.

Write a program to find the minimum product spanning tree (product and set of edges) for a weighted, connected and undirected graph

Input

The first line contains 2 space-separated integers: n and m. Each of the following m lines contain description of one edge: three different space-separated integers: a, b and c.

a and b are different and from 0 to n-1 each and denote numbers of vertices that are connected by this edge. c denotes the weight of this edge.

Sample Input:
5 7
0 1 2
0 3 6
1 2 3
1 3 8
1 4 5
2 4 7
3 4 9

Output:
Minimum Product :180
Edges: 0-1, 1-2, 0-3 and 1-4