

Algorithms Lab

Exercise – *First steps with BGL*

Read a weighted undirected graph, compute the total weight of its minimum spanning tree and the distance from node 0 to a node furthest from it.

Input The first line of the input file contains $t \leq 100$, the number of test cases.

Each test case starts with a line containing $n \leq 100, m \leq \frac{n \cdot (n-1)}{2}$, the number of vertices and edges of the graph. m lines follow, each defining the two endpoints and weight of an edge. All weights are non-negative integers and at most 1000.

The input graph is guaranteed to be connected.

Output For each test case output a single line containing w , the sum of weights of all edges of a minimum spanning tree, and d , the distance from node 0 to a node furthest from it.

Sample Input

```
1
5 6
0 1 1
0 2 2
1 2 5
1 3 1
3 2 2
2 4 3
```

Sample Output

```
7 5
```