

# Minimum Spanning Tree

Find the minimum spanning tree of the graph.

## Input

On the first line there will be two integers  $N$  - the number of nodes and  $M$  - the number of edges. ( $1 \leq N \leq 10000$ ), ( $1 \leq M \leq 100000$ )

$M$  lines follow with three integers  $i$   $j$   $k$  on each line representing an edge between node  $i$  and  $j$  with weight  $k$ . The IDs of the nodes are between 1 and  $n$  inclusive. The weight of each edge will be  $\leq 1000000$ .

## Output

Single number representing the total weight of the minimum spanning tree on this graph. There will be only one possible MST.

## Example

### Input:

```
4 5
1 2 10
2 3 15
1 3 5
4 2 2
4 3 40
```

### Output:

```
17
```