

King's Defense

Lil Chanu's country is under attack and he employed a strategy to defend it. But he is a miser so he wants to do that very economically.

The country contains N cities (numbered 1 through N) and M roads between them (all roads are bidirectional). You can reach from any city to any other city, via country's road network.

But unfortunately he has to compromise on this amazing connectivity for the sake of security. He wants to keep the minimal amount of roads required to keep the country connected and destroy the rest of them.

Obviously there is no fooling you guys that the new road network will be a tree. So in order to keep his strongholds he wants a certain subset of cities " S ", possibly empty, to be the leaves of the tree. Each road has a cost of operation, Lil Chanu wants to make a road network which has minimum total cost of operation and satisfies all the criterion. Tell the cost of operation of such a network.

Input:

First line contains 3 integers N , M and K . Denoting the number of cities, number of roads and the size of the subset S respectively. Next line has K space separated integers denoting S_i 's. Next M lines follow i 'th line has u_i , v_i and w_i . The road connects city u_i and v_i , and has a cost of operation w_i .

Output:

A single number the total cost of operation of the network.

Constraints:

$1 \leq N \leq 10^5$
 $1 \leq M \leq 10^6$
 $0 \leq K \leq N$
 $0 \leq w_i \leq 10^9$
Time limit = 1sec

Sample Input:

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2 1 2
1 2
1 2 10
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Sample Output:

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10
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