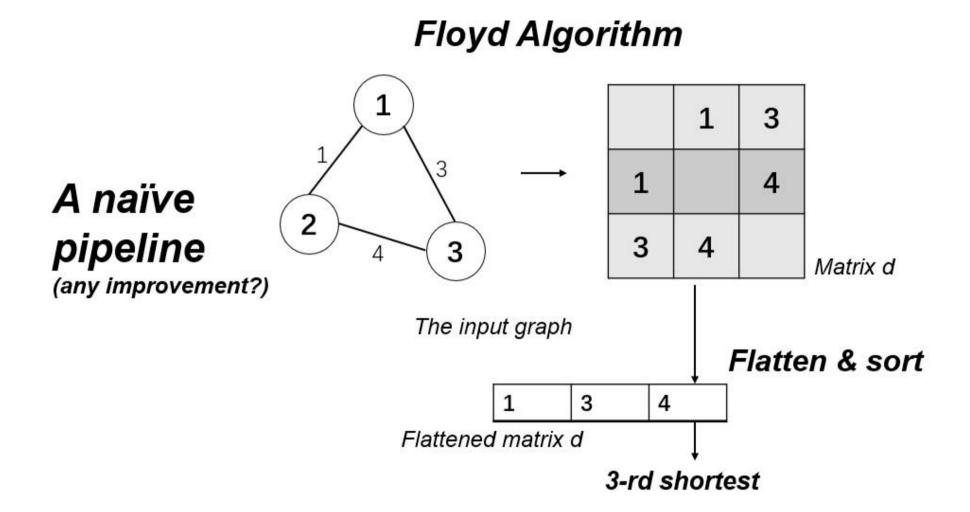


In lectures, by floyd-warshall algorithm, we can compute APSP(all pairs shortest paths).

In this task, you are required to find the length of k-th shortest path among all pairs of vertices, given an undirect ed weighted graph.



In other words, assume d is the matrix of shortest path. the length of k-shortest path is the k-th element in the s orted array consisting of all d[i][j], where 1<=i<j<=n and n is the quantity of vertices.

Update 11/14 1:59: Fix the example of directed graph.

输入

- 1. The first line: three integers n,m,k ($2 <= n <= 2*10^5$, n 1 <= m <= $2*10^5$, 1<=k<=400), indicating n vertices , m edges and k-shortest
- 2. For next m lines: three integers x, y, w (1<=x, y <=n, 1<=w<=10^9, x!=y), indicating an edge between vertic es x and y with weight w.

All inputs are legal. It is guaranteed that the given graph is connected, no self-loops and multiple edges.

输出

An integer, the length of k-th shortest path (path from vertex to itself not counted, paths from i to j and j to i are c ounted as one)

输入样例 1 🖺

5 10 7			
1 2 35			
1 3 43			
4 5 79			
5 3 61			
5 2 97			
2 4 54			
1 4 52			
1 5 38			
3 2 86			
3 4 11			

输出样例 1

