

Colors

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

points: 100 · problem code: colors · author: jbroeksteeg

Grindra finds themselves in a directed graph of n nodes and m edges. Furthermore, each node is painted a color, initially "Red". As Grindra is in possession of a paintbrush, they are also able to paint the nodes.

Each edge is of the form `a b c d e`, meaning that if Grindra is at node a when it is painted color b , they can paint node c color d , and the move to it with cost e .

As Grindra's painting companion, can you help them answer the question: What is the minimum cost with which they can move from node 0 to node $n - 1$.

Input Format

The first line will consist of two integers, n and m . The next m lines will each consist of 5 integers `a b c d e`, as described above.

Output Format

A single integer, the smallest cost to get from node 0 to node $n - 1$, assuming that every node starts as red.

Example Input 1

```
5 5
0 Red 1 Red 10
1 Red 2 Blue 10
0 Green 2 Blue 5
2 Blue 4 Green 5
1 Red 4 Blue 5
```

Example Output 1

10

Example Explanation 1

The optimal path is from (0, Red) to (2, Blue) to (4, Green). This has cost 10.

Constraints

$2 \leq n \leq 5e4$

$n - 1 \leq m \leq n * 10$

$0 \leq a, c \leq n - 1$

$b, d \in \{Red, Green, Blue, Yellow, Brown\}$