

## Team forming contest 5 - 2013 batch

1:49:29

5:00:00

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### A - Information Disturbing

**Time Limit:**3000MS **Memory Limit:**65536KB **64bit IO Format:**%I64d & %I64u[Submit](#)[Status](#)

### Description

In the battlefield, an effective way to defeat enemies is to break their communication system. The information department told you that there are  $n$  enemy soldiers and their network which have  $n-1$  communication routes can cover all of their soldiers. Information can exchange between any two soldiers by the communication routes. The number 1 soldier is the total commander and other soldiers who have only one neighbour is the frontline soldier. Your boss zzn ordered you to cut off some routes to make any frontline soldiers in the network cannot reflect the information they collect from the battlefield to the total commander( number 1 soldier). There is a kind of device who can choose some routes to cut off. But the cost ( $w$ ) of any route you choose to cut off can't be more than the device's upper limit power. And the sum of the cost can't be more than the device's life  $m$ . Now please minimize the upper limit power of your device to finish your task.

### Input

The input consists of several test cases.  
The first line of each test case contains 2 integers:  $n(n \leq 1000)$   $m(m \leq 1000000)$ .  
Each of the following  $N-1$  lines is of the form:  
 $a_i \ b_i \ w_i$   
It means there's one route from  $a_i$  to  $b_i$ (undirected) and it takes  $w_i$  cost to cut off the route with the device.  
( $1 \leq a_i, b_i \leq n, 1 \leq w_i \leq 1000$ )  
The input ends with  $n=m=0$ .

### Output

Each case should output one integer, the minimal possible upper limit power of your device to finish your task.  
If there is no way to finish the task, output -1.

### Sample Input

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

## Sample Output

3

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