IEEEXtreme Türkiye Kampı: Gün 1
OFFROAD

Problem

You decided to go on a discovery trip on a desert with your newly-bought offroad car. You can attach a fuel tank of any capacity you like. What is the minimum amount of capacity that can take you to the destination?

Assume you are riding your car in a straight road. A lot of things happen to you in the road. The road may become rough, which increases your fuel consumption; something may pierce your tank, resulting in a leak in your tank. Of course, good things happen in life as well. You may encounter a gas station, in which you can full you tank. Or you may encounter a mechanic, who repairs all the leaks in the tank.

When the events that happen to you, and when exactly they happen are given, calculate the minimum tank capacity that you need to complete your journey.

Input

Input contains several cases. In each case there are at most 50 events. Each event is given with the km that it happens, its name and an extra optional information. Each case is constructed in the following manner:

Each line denotes a single event. Events are given as following:

[km] Yakit Tuketimi [value]: Denotes that the fuel consumption increased/decreased to [value] in a given [km]. [value] is the fuel consumption per 100 km. [value] is in [1,30].

[km] Delik: Denotes that something pierced your tank in [km]. Each hole increases the fuel consumption by 1 lt/km. If there are more than 1 holes, their effects are summed.

[km] Benzin Istasyonu: Denotes that there exists a gas station in a given [km]. In a gas station you can full your tank.

[km] Tamirci: Denotes that there exists a mechanic in a given [km]. A mechanic can repair all holes in your tank.

[km] Hedef: Denotes that the place given with [km] is the final destination.

The first line of a case will be “0 Yakit Tuketimi [value]”.

The last line of a case will be “[km] Hedef”. (There will exist only one Hedef line.)

The events will be given in chronological order that is [km] values will be ordered. There may exist multiple events in the same [km] value.

[km] and [value] values will be integers.

The end of the input will be signalled by “0 Yakit Tuketimi 0” line.

Output

For each case print the minimum required amount of tank capacity in 3 significant figures.

Sample Input

```
0 Yakit Tuketimi 5
120 Hedef
0 Yakit Tuketimi 17
100 Yakit Tuketimi 12
200 Hedef
0 Yakit Tuketimi 12
15 Delik
25 Delik
25 Yakit Tuketimi 6
70 Benzin Istasyonu
70 Tamirci
120 Delik
140 Hedef
0 Yakit Tuketimi 0
```

Sample Output

```
6.000
29.000
105.700
```

Time Limit

C/C++/Java: 0.5 secs, Python: 1 secs