

1. Walk (jalu)

1 second

10 points

Mart takes a walk every day and his sports watch registers the duration and speed of each segment of uniform movement of his walk. After the walk, Mart can download a log file to his computer. Find the total distance and the average speed of the walk based on this file.

Input. The first line of the text file `jalusis.txt` contains an integer N ($1 \leq N \leq 10,000$) and each of the subsequent N lines contains the following (space-separated) data about one segment:

- the duration of the segment in minutes and seconds in the form $M\mathbf{m}S\mathbf{s}$, where M is the integer number of minutes (and the minutes part is omitted for times less than a minute) and S is the integer number of seconds (which never exceeds 59);
- the word `kiirusega`;
- the speed on this segment expressed as minutes and seconds per kilometre in the form $M\mathbf{m}S\mathbf{s}/\mathbf{km}$, where M is the integer number of minutes and S is the integer number of seconds (which never exceeds 59), and you may assume Mart needs at least a minute, but less than an hour, per kilometre.

You may also assume that the total of the durations of all segments does not exceed 24 hours.

Output. The text file `jaluval.txt` should contain two lines:

- on the first line the total distance of the walk, rounded to metres, in the form $L\mathbf{m}$, where L is the integer number of metres;
- on the second line the average speed in the form $V\mathbf{km}/\mathbf{h}$, where V is a real number; the output value must not differ from the correct answer by more than 0.001.

Example.	<code>jalusis.txt</code>	<code>jaluval.txt</code>
	3	1531m
	8m30s kiirusega 9m10s/km	7.057km/h
	4m10s kiirusega 8m1s/km	
	21s kiirusega 4m10s/km	