

Problem 5

Design Firm

A design firm has two different methods of billing, time and materials (T&M), and contract. With T&M billing, the company charges for each hour one of their employees works on the project, and with contract billing they charge a flat rate.

Input

You are given 2 input files. The first one specifies the jobs that the company is working on. It is formatted as follows:

```
<Job Number> <Billing Method> <Billing Amount>
<Job Number> <Billing Method> <Billing Amount>
...
```

Each job is on its own line. Billing Method is either "TM" or "CONTRACT", and Billing Amount is the hourly rate if the job is TM, or the contract amount if the job is Contract.

The second input file details how many hours are worked on each project. It is formatted as follows:

```
<Job Number> <Hours Worked>
<Job Number> <Hours Worked>
...
```

Note that this file contains hours worked for BOTH TM and Contract jobs.

Output

- A list of jobs with the amount that the company should bill for each. If the job is TM, you must calculate the number of hours worked times the hourly rate for that job. If the job is contract, the billing amount is just the billing amount specified in the file.
- If the job is a contract job, you must determine if the company would've made more (and how much more) money billing the job as hourly. To do this, take the AVERAGE of the hourly rates for the TM jobs, and multiply it by the hours worked on the contract job. Display an appropriate message for each contract job.

Sample input

```
jobs.txt hours.txt
```

Sample input file (jobs.txt)

```
1 CONTRACT 1000
2 TM 75
3 CONTRACT 2745
4 TM 50
5 CONTRACT 320
```

Sample input file (hours.txt)

```
1 10
2 30
3 45
4 27
5 2
```

Sample output

```
1 1000
2 2250
3 6650 WOULD HAVE MADE 67.50 MORE
4 1350
5 320
```