

1564 - The Biggest Loser

Description

The Biggest Loser is a television show broadcast in many countries. It centers on overweight contestants attempting to lose the most weight to fight for a cash prize. There are different variations of the Biggest Loser around the world. Each country has made its own adaptation to the show; however, the contestants always have the same goal: to lose the highest percentage of (or most) weight to become the Biggest Loser. In the variant named "The Biggest Loser Couple Mexico & the Caribbean" the contestants will compete individually by gender and have the same goal: to lose the highest percentage of weight in a period of sixteen weeks to become the winner. In this contest there will be two winners, one man and one woman and will be named "The Biggest Loser Couple Mexico & the Caribbean 2011". Remember, in Mexico and the Caribbean the unit of weight is the kilogram. For example,

Contestant name	Gender	Initial weight	Final weight	% of weight lost
Carlos	Male	110.850	80.350	27.51%
Nadia	Female	125.325	94.650	24.48%
Amanda	Female	100.250	73.850	26.33%
Paul	Male	96.365	70.500	26.84%
Fred	Male	136.750	95.750	29.98%
Kandy	Female	99.000	70.850	28.43%
Ray	Male	115.800	75.550	34.76%
Curtis	Male	145.975	98.250	32.69%
Athenea	Female	129.350	91.450	29.30%
Gisel	Female	105.950	80.250	24.26%
Eduardo	Male	109.500	77.300	29.41%
Barbie	Female	145.875	105.000	28.02%

In this example, the winning couple is integrated by **Ray** and **Athenea** who have lost a weight percentage of 34.76% and 29.30% respectively. Your task is to help the organizers with a program that determines the winner couple of "**The Biggest Loser Couples Mexico & the Caribbean**"

2011".

Input specification

The input consists of a series of scenarios for a number of contests. The first line in each scenario consists of a positive integer, N , which represents the number of contestants in the contest ($2 < N < 100$). Each of the following N lines contains the data for one contestant. The line contains four items: the name of the contestant (a single series of between 2 and 10 letters, lower case except for the first) followed by one character that represents the gender of the contestant ('M' - Male, 'F' - Female) followed by two decimal numbers in the range 65.000 to 750.000, each with three digits after the decimal point. The first number represents the initial weight and the second number represents the final weight after sixteen weeks. Items are separated by single spaces. Input is terminated by a scenario where N equals 0 (zero). This scenario should not be processed.

Output specification

The output consists of one line per scenario. Each line will contain the following items in order, separated by single space: the name of the man with the highest percentage of weight lost (exactly as it appears in the input), the percentage of weight lost (rounded to 2 decimals), the name of the woman with the highest percentage of weight lost (exactly as it appears in the input), the percentage of weight lost (rounded to 2 decimals).

Sample input

```
12
Carlos M 110.850 80.350
Nadia F 125.325 94.650
Amanda F 100.250 73.850
Paul M 96.365 70.500
Fred M 136.750 95.750
Kandy F 99.000 70.850
Ray M 115.800 75.550
Curtis M 145.975 98.250
```

```
Athenea F 129.350 91.450
Gisel F 105.950 80.250
Eduardo M 109.500 77.300
Barbie F 145.875 105.000
0
```

Sample output

```
Ray 34.76% Athenea 29.30%
```

Hint(s)

Source	ITESO
Added by	ejaltuna
Addition date	2011-10-13 11:12:41.0
Time limit (ms)	1000
Test limit (ms)	1000
Memory limit (kb)	65536
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	C C# C++ Java Pascal Perl PHP Python Ruby Text