

**STA Online Computer Programming Contest (DWITE)**  
**October 2004**

**Problem 3**

**The Tallest in the Class**

Each student in Mrs. Chapman's class measured themselves using a metre stick and wrote down their height. The problem was that each student used a different unit of measurement, either metres(m), decimetres(dm), centimetres(cm), or millimetres(mm). Your job is to find out the names of the tallest five people in the class.

The first line of the input file (DATA3) will contain an integer  $n$ ,  $0 < n \leq 35$ , representing the number of students in Mrs. Chapman's class. The next  $n$  lines will contain the names, heights and unit of measurement of the students. Each item is separated by a single space. The heights will be a real value and the unit of measurement will be either m, dm, cm or mm.

The output file (OUT3) will contain five lines of data. It will list the names of the five tallest students in order. If students have identical heights, their names should be listed in alphabetical order.

**Sample Input**

```
12
Jim 1.45 m
Sally 187 cm
Joey 1064 mm
Roel 15.23 dm
Karl 134 cm
Melanie 18.9 dm
Jill 1.54 m
Sam 133 cm
Joel 1877 mm
Roger 17.83 dm
Karen 178 cm
Marnie 17.9 dm
```

**Sample Output**

```
Melanie
Joel
Sally
Marnie
Roger
```