**The Windy's**

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| --- | --- | --- |
| **Time Limit:** 5000MS |  | **Memory Limit:** 65536K |
|  |  |  |

**Description**

The Windy's is a world famous toy factory that owns *M* top-class workshop to make toys. This year the manager receives *N* orders for toys. The manager knows that every order will take different amount of hours in different workshops. More precisely, the *i*-th order will take *Zij* hours if the toys are making in the *j*-th workshop. Moreover, each order's work must be wholly completed in the same workshop. And a workshop can not switch to another order until it has finished the previous one. The switch does not cost any time.

The manager wants to minimize the average of the finishing time of the *N* orders. Can you help him?

**Input**

The first line of input is the number of test case. The first line of each test case contains two integers, *N* and *M* (1 ≤ *N*,*M* ≤ 50).  
The next *N* lines each contain *M* integers, describing the matrix *Zij* (1 ≤ *Zij* ≤ 100,000) There is a blank line before each test case.

**Output**

For each test case output the answer on a single line. The result should be rounded to six decimal places.

**Sample Input**

3

3 4

100 100 100 1

99 99 99 1

98 98 98 1

3 4

1 100 100 100

99 1 99 99

98 98 1 98

3 4

1 100 100 100

1 99 99 99

98 1 98 98

**Sample Output**

2.000000

1.000000

1.333333

**Source**

[POJ Founder Monthly Contest – 2008.08.31](http://poj.org/searchproblem?field=source&key=POJ+Founder+Monthly+Contest+%E2%80%93+2008.08.31), windy7926778