Problem G

Crime Wave – The Sequel

Input: Standard Input
Output: Standard Output
Time Limit: 2 Seconds

n banks have been robbed this fine day. **m** (greater than or equal to **n**) police cruisers are on duty at various locations in the city. **n** of the cruisers should be dispatched, one to each of the banks, so as to minimize the average time of arrival at the **n** banks.

Input

The input file contains several sets of inputs. The description of each set is given below:

The first line of input contains **0 < n <= m <= 20**. **n** lines follow, each containing **m** positive real numbers: the travel time for cruiser **m** to reach bank **n**.

Input is terminated by a case where **m=n=0**. This case should not be processed.

Output

For each set of input output a single number: the minimum average travel time, accurate to **2** fractional digits.

Sample Input	Output for Sample Input
3 4 10.0 23.0 30.0 40.0 5.0 20.0 10.0 60.0 18.0 20.0 20.0 30.0 0 0	13.33

Problemsetter: Gordon Cormack, EPS