Payment in Dollars

Task. In Lithuania payments are sometimes made in dollars. Only paper notes circulate (their value is not less than one dollar) because the banks do not sell the coins.

The value of one dollar is relatively large, therefore problems arise, when a small number of dollars must be shared proportionally by several people.

Input. The input is the number of dollars d that must be shared among n workers as payment for the produced good, and the contribution of every worker to the production expressed in percentage.

Output. The output are the amount of dollars to be given out to each worker.

All the dollars must be distributed to the workers in such a way that the sum of errors would be the smallest. The error made when calculating the payment to a worker is defined as the module of the difference between the whole amount of dollars that was paid and the exact amount the worker earned.

Explain the idea of the solution and write an algorithm to solve the task.

Examples.

Input	Output	Comments
`40 4` `35 10 50 5`	`14 4 20 2`	40 dollars have to be distributed to 4 workers. Their contribution to the production is: $35 + 10 + 50 + 5 = 100\%$.

Constraints. $10 \leq d \leq 2\ 000$, $2 \leq n \leq 100$.