A. Line to Cashier

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Little Vasya went to the supermarket to get some groceries. He walked about the supermarket for a long time and got a basket full of products. Now he needs to choose the cashier to pay for the products.

There are n cashiers at the exit from the supermarket. At the moment the queue for the i-th cashier already has k_i people. The j-th person standing in the queue to the i-th cashier has $m_{i,j}$ items in the basket. Vasya knows that:

- the cashier needs 5 seconds to scan one item;
- after the cashier scans each item of some customer, he needs 15 seconds to take the customer's money and give him the change.

Of course, Vasya wants to select a queue so that he can leave the supermarket as soon as possible. Help him write a program that displays the minimum number of seconds after which Vasya can get to one of the cashiers.

Input

The first line contains integer n ($1 \le n \le 100$) — the number of cashes in the shop. The second line contains n space-separated integers: $k_1, k_2, ..., k_n$ ($1 \le k_i \le 100$), where k_i is the number of people in the queue to the i-th cashier.

The i-th of the next n lines contains k_i space-separated integers: $m_{i,1}, m_{i,2}, ..., m_{i,k_i}$ ($1 \le m_{i,j} \le 100$) — the number of products the j-th person in the queue for the i-th cash has.

Output

Print a single integer — the minimum number of seconds Vasya needs to get to the cashier.

Examples

input
1 1 1
output
20

input
4 1 4 3 2 100 1 2 2 3 1 9 1 7 8
output
100

Note

In the second test sample, if Vasya goes to the first queue, he gets to the cashier in $100 \cdot 5 + 15 = 515$ seconds. But if he chooses the second queue, he will need $1 \cdot 5 + 2 \cdot 5 + 2 \cdot 5 + 3 \cdot 5 + 4 \cdot 15 = 100$ seconds. He will need $1 \cdot 5 + 9 \cdot 5 + 1 \cdot 5 + 3 \cdot 15 = 100$ seconds for the third one and $7 \cdot 5 + 8 \cdot 5 + 2 \cdot 15 = 105$ seconds for the fourth one. Thus, Vasya gets to the cashier quicker if he chooses the second or the third queue.

Codeforces Round #239 (Div. 2)
Finished

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