G. University Classes

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

There are n student groups at the university. During the study day, each group can take no more than 7 classes. Seven time slots numbered from 1 to 7 are allocated for the classes.

The schedule on Monday is known for each group, i. e. time slots when group will have classes are known.

Your task is to determine the minimum number of rooms needed to hold classes for all groups on Monday. Note that one room can hold at most one group class in a single time slot.

Input

The first line contains a single integer n ($1 \le n \le 1000$) — the number of groups.

Each of the following n lines contains a sequence consisting of 7 zeroes and ones — the schedule of classes on Monday for a group. If the symbol in a position equals to 1 then the group has class in the corresponding time slot. In the other case, the group has no class in the corresponding time slot.

Output

Print minimum number of rooms needed to hold all groups classes on Monday.

Examples

input
2 0101010 1010101
output
1

input
3 0101011 0011001 0110111
output
3

Note

In the first example one room is enough. It will be occupied in each of the seven time slot by the first group or by the second group.

In the second example three rooms is enough, because in the seventh time slot all three groups have classes.