

4660 A+B

Given two integers A and B that are not necessarily in base-10, find the smallest possible $A + B$ in base-10.

For example,

$A = 213$ possibly base-4 (39 in base-10)
 $B = 4721$ possibly base-8 (2513 in base-10)

$$A + B = 39 + 2513 = 2552$$

Input

First line of the input contains a positive integer T ($1 \leq T \leq 100$), the number of cases. Each case contains two positive integers A and B . A and B will contain at most 5 digits, each digit will be between 0 and 9, inclusive, and no leading zeroes.

Output

For each case, output an integer in base-10 denoting the smallest possible $A + B$.

Sample Input

```
3
213 4721
1001 90
638 241
```

Sample Output

```
2552
99
592
```