Interleaving of numbers   P72315_en

We define the interleaving of two natural numbers with d digits $x = x_d x_{d-1} \ldots x_2 x_1$ and $y = y_d y_{d-1} \ldots y_2 y_1$ as $x_d y_d x_{d-1} y_{d-1} \ldots x_2 y_2 x_1 y_1$. For example, the interleaving of 4123 and 5679 is 45162739. Write a program that reads pairs of natural numbers and prints their interleavings.

For the sake of practice, define and use a function

    int *interleaving* (**int** x, **int** y);

to compute the interleaving of two natural numbers x and y.

Input

Input consists of several pairs of natural numbers with the same number of digits.

Output

Print the interleaving of every given pair.

Observation

To avoid overflows, no given number will have more than four digits, but your program should not take this fact into account.

Sample input 1

```
4123 5679
312 435
22 91
8 7
3 0
0 3
0 0
```

Sample output 1

```
45162739
341325
2921
87
30
3
0
```

Problem information

Author: Professors de P1
Translator: Salvador Roura

Generation: 2026-01-25T11:41:47.301Z