

Binary Adder

Python has many functions. This question will train you to use **bin(x)** and **int(x, base)** as explained below

bin(x)

Return a binary string prefixed with "0b" constructed from an integer **x**.

int(x, base)

Return an integer constructed from a string **x** in the specified **base** (default is 10).

Write a program that receives 2 integers(binary form) to find a sum and show it in binary form.

You must use **bin** and **int** above

Input

2 Strings that consist of number 0 and 1, separated by space, representing 2 binary numbers

(both are non negative)

Output

Sum of 2 input binary numbers, shown in binary.

Example

Input (from keyboard)	Output (on screen)
100101 11001	111110
000000 00000	0
1111111111111111111111111111 1	100000000000000000000000000000