Bit Convert

Your task is to decode a message sent by a friend of yours to help you cheat on the exam. Be aware that the trainers are watching.

The message arrives as a sequence of numbers separated by comma.

How to decode it:

- You have to read the input from left to right.
- Convert each number into its binary representation and pad it with zeros to 8 symbols
  - EXAMPLE:
    - let arr = [28, 1, 45, 255];
    - 28 = 00011100
    - 1 = 00000001
    - 45 = 00101101
    - 255 = 11111111
- If the number is on odd position remove all the bits on odd positions and vice versa
  - EXAMPLE:
    - 28 is on even position = 0 **0** 0 **1** 1 **1** 0 **0** = 0110
    - 1 is on odd position = **0** 0 **0** 0 **0** 0 **0** 1 = 0000
    - 45 is on even position = 0 **0** 1 **0** 1 **1** 0 **1** = 0011
    - 255 is on odd position = **1** 1 **1** 1 **1** 1 **1** 1 = 1111
- Result is concatenated all the decoded numbers in binary concatenated
  - EXAMPLE:
    - **0110** 0000 **0011** 1111

Input

- Read from the standard input
- The only input line contains a sequence of integers separated by comma - number N which is the encoded message.
- The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

- Print to the standard output
- The output consists of one line. On this output line you must print the **result** after decoding the key.

Constraints

- The numbers in the array will be in the range [0;255]
- The array length will be between 4 and 400 numbers

Sample Tests

Input

```
28,1,45,255
```

Output

```
0110000000111111
```

Input

```
2,1,0,2
```

Output

```
0000000000000001
```