

Problem C. Radix

Input file: radix.in
Output file: radix.out
Time limit: 5 seconds
Memory limit: 256 mebibytes

In this problem, you are given a non-negative decimal integer (written in base 10), and your task is to print its binary representation (in base 2).

Input

The only one line of input contains the integer n ($0 \leq n \leq 10^{5 \cdot 10^5}$) without leading zeroes.

Output

On the first line of output, print the binary representation of n without leading zeroes.

Example

| radix.in | radix.out |
|----------|-----------|
| 10 | 1010 |