

A network protocol specifies how data is exchanged via transmission media. The protocol converts each message into a stream of 1's and 0's.

Given a decimal number, write an algorithm to **convert the number into a binary form**.

Input Format

a decimal number from the user

Constraints

$n \geq 0$

Output Format

its equalent binary form

Sample Input 0

4

Sample Output 0

100

Sample Input 1

8

Sample Output 1

1000