Base Converssion

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given a number N. Print the binary equivalent of N.

Note: Solve this problem using recursion.

Input

First line contains a number T ($1 \leq T \leq 10^4$) number of test cases.

Next T lines will contain a number N ($1 \leq N \leq 10^9$).

Output

For each test case print a single line contains the answer according to the required above.

Example

standard input	standard output
2 10 3	1010 11

Note

To convert decimal number to binary :

A decimal integer can be converted to binary by dividing it by 2.

Take the quotient, and keep dividing it by 2, until you reach zero.

Each time you perform this division, take note of the remainder. Now reverse the remainders list, and you get the number in binary form

Example to convert 29 to binary

Step	Operation	Result	Remainder
Step 1	29 / 2	14	1
Step 2	14 / 2	7	0
Step 3	7 / 2	3	1
Step 4	3 / 2	1	1
Step 5	1 / 2	0	1

for more details visit this `https://flaviocopes.com/converting-decimal-to-binary/`.