



# Flipping bits ☆

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You will be given a list of 32 bit unsigned integers. Flip all the bits ( $1 \rightarrow 0$  and  $0 \rightarrow 1$ ) and print the result as an unsigned integer.

For example, your decimal input  $n = 9_{10} = 1001_2$ . We're working with 32 bits, so:

$000000000000000000000000000000001001_2 = 9_{10}$

$111111111111111111111111111111110110_2 = 4294967286_{10}$

## Function Description

Complete the *flippingBits* function in the editor below. It should return the unsigned decimal integer result.

flippingBits has the following parameter(s):

- $n$ : an integer

## Input Format

The first line of the input contains  $q$ , the number of queries.

Each of the next  $q$  lines contain an integer,  $n$ , to process.



### Constraints

$$1 \leq q \leq 100$$

$$0 \leq n < 2^{32}$$

### Output Format

Output one line per element from the list with the decimal value of the resulting unsigned integer.

### Sample Input 0

```
3
2147483647
1
0
```

### Sample Output 0

```
2147483648
4294967294
4294967295
```

### Explanation 0

$$01111111111111111111111111111111_2 = 2147483647_{10}$$

$$10000000000000000000000000000000_2 = 2147483648_{10}$$

$$00000000000000000000000000000001_2 = 1_{10}$$

$$11111111111111111111111111111110_2 = 4294967294_{10}$$

$$00000000000000000000000000000000_2 = 0_{10}$$

$$11111111111111111111111111111111_2 = 4294967295_{10}$$

#### Sample Input 1

2

4

123456

#### Sample Output 1

4294967291

4294843839

#### Explanation 1

$$00000000000000000000000000000100_2 = 4_{10}$$

$$11111111111111111111111111111011_2 = 4294967291_{10}$$

$$0000000000000000011110001001000000_2 = 123456_{10}$$

$$1111111111111111100001110110111111_2 = 4294843839_{10}$$

#### Sample Input 2

3

0

802743475

35601423

## Sample Output 2

4294967295  
3492223820  
4259365872

## Explanation 2

$$00000000000000000000000000000000_2 = 0_{10}$$

$$11111111111111111111111111111111_2 = 4294967295_{10}$$

$$001011111011000111001001011001_2 = 802743475_{10}$$

$$11010000001001110001101101001100_2 = 3492223820_{10}$$

$$00000010000111110011110000001111_2 = 35601423_{10}$$

$$1111101111000001100001111110000_2 = 4259365872_{10}$$