

Flipping bits

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

Example

$n = 9_{10}$

$9_{10} = 1001_2$. We're working with 32 bits, so:

$000000000000000000000000000000001001_2 = 9_{10}$

$11111111111111111111111111111110110_2 = 4294967286_{10}$

Return **4294967286**.

Function Description

Complete the *flippingBits* function in the editor below.

flippingBits has the following parameter(s):

- int n*: an integer

Returns

- int*: the unsigned decimal integer result

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

$$1 \leq q \leq 100$$
$$0 \leq n < 2^{32}$$

Sample Input 0

```
3
2147483647
1
0
```

Sample Output 0

```
2147483648
4294967294
4294967295
```

Explanation 0

$01111111111111111111111111111111_2 = 2147483647_{10}$
 $10000000000000000000000000000000_2 = 2147483648_{10}$

$00000000000000000000000000000001_2 = 1_{10}$
 $111111111111111111111111111111110_2 = 4294967294_{10}$

$00000000000000000000000000000000_2 = 0_{10}$
 $11111111111111111111111111111111_2 = 4294967295_{10}$

Sample Input 1

2
4
123456

Sample Output 1

4294967291
4294843839

Explanation 1

$00000000000000000000000000000100_2 = 4_{10}$
 $11111111111111111111111111111011_2 = 4294967291_{10}$

 $00000000000000011110001001000000_2 = 123456_{10}$
 $1111111111111100001110110111111_2 = 4294843839_{10}$

Sample Input 2

3
0
802743475
35601423

Sample Output 2

4294967295
3492223820
4259365872

Explanation 2

$00000000000000000000000000000000_2 = 0_{10}$
 $11111111111111111111111111111111_2 = 4294967295_{10}$

 $0010111110110001110010010110011_2 = 802743475_{10}$
 $11010000001001110001101101001100_2 = 3492223820_{10}$

 $00000010000111110011110000001111_2 = 35601423_{10}$
 $111110111100000110000111110000_2 = 4259365872_{10}$

