

Smallest power of 2 greater than or equal to n

Given a number N, Write a program to find a number which is greater than or equal to N and is a smallest power of 2.

Input:

First line of input contains a single integer T which denotes the number of test cases. Then T test cases follows. First line of each test case contains a single integer N.

Output:

For each test case, print a number which is greater than or equal to N and is a nearest power of 2.

Constraints:

$1 \leq T \leq 100$

$1 \leq N \leq 100000$

Example:

Input:

4

5

1

17

32

Output:

8

1

32

32