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## Odd

Problem Code: **DCE05**

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The captain of the ship TITANIC is a little .... off the track. He needs to select the crew for the ship. But everyone seems to be eligible. So to test their intelligence, he plays a game.

The contestants have to stand in a line. They are given the numbers in the order in which they stand, starting from 1. The captain then removes all the contestants that are standing at an odd position.

Initially, standing people have numbers - 1,2,3,4,5...

After first pass, people left are - 2,4,...

After second pass - 4,....

And so on.

You want to board the ship as a crew member. Given the total number of applicants for a position, find the best place to stand in the line so that you are selected.

### Input

First line contains the number of test cases t ( $t \leq 10^5$ ). The next t lines contain integer n, the number of applicants for that case. ( $n \leq 10^9$ )

### Output

Display t lines, each containa a single integer, the place where you would stand to win a place at TITANIC.

### Example

Input :

2  
5  
12

Output :

4  
8

All submissions for this problem are available.

Author: [uploader0](#)

Tags: [uploader0](#)

Date Added: 14-10-2009

Time Limit: 0.67 secs

Source Limit: 50000 Bytes

Languages: CPP14, C, JAVA, PYTH 3.6, PYTH, CS2, ADA, PYPY, PYP3, TEXT, CPP17, PAS fpc, RUBY, PHP, NODEJS, GO, HASK, PERL, SCALA, kotlin, BASH, JS, PAS gpc, BF, LISP sbcl, CLOJ, LUA, D, R, CAML, rust, ASM, FORT, FS, LISP clisp, SQL, swift, SCM guile, PERL6, CLPS, WSPC, ICK, NICE, PRLG, ICON, PIKE, COB, SCM chicken, SCM qobi, ST, NEM, SQLQ

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