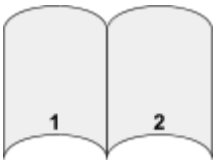
Problem G: The Page Problem

Filename: `g`

Time Limit: `1 second`



Tobias has a problem. He broke the spine of a book and now all the pages are separated. The book's pages were numbered starting with the inside of the cover as 1. Every page number was one more than the previous (in terms of the normal page order of a book).

The book contained many visual puzzles that span two pages. The puzzle will start on an odd page (e.g. n) and continue into the following page (i.e. n+1). If a puzzle starts on page 3, it would end on page 4. However, if part of a puzzle is on page 2, the remainder of the puzzle would be on page 1.

Tobias has a page that has grabbed his attention, and now Tobias *needs* to see the complete puzzle. Help Tobias determine the number of the page, so that he can satisfy his curiosity.

Problem

Given the page number of half of the puzzle, determine the number of the other half of the puzzle.

Input

The first line of input contains a single positive integer, **p**, representing the number of pages that contain a puzzle of which Tobias is interested.

The next **p** lines will each contain a single integer, **x**, representing the number of the page that Tobias has.

Output

For each page, print the corresponding page that completes Tobias's puzzle.

Input Bounds and Corresponding Credit

- $1 \leq \mathbf{p} \leq 100$
- $1 \leq \mathbf{x} \leq 100$

Samples

Input	Output
3	6
5	99
100	2
1	