CodeWars Qualifier B

QUESTION #1:

Outlier in Three

You are given three integers: A, B and C.

Out of these three, there are two same numbers but the other one is different.

You task is to find out the different number among these three.

Constraints

- −100 ≤ A, B, C ≤ 100
- A, B and C are integers.
- The input satisfies the condition in the statement.

Input

Input is given from Standard Input in the following format:

A B C

Output

Among A, B and C, print the integer that is different from the rest.

Input

1 1 7

Output

7

Note: In this case, C is the one we seek (No extra line space).

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QUESTION #2:

Amir and Rating Goal

Amir is a user on a website that holds programming contests.

Each user on the site has a rating (not necessarily integer). Rating changes according to the performance of the user.

Suppose a user has current rating A. If his/her rating is B in the contest, then the new rating of the user is the average of A and B.

For example, if a user with rating 1 competes in a contest and gives performance 1000, his/her new rating will be 500.5, the average of 1 and 1000.

Amir's current rating is R, and he wants his rating to be G after the next contest. Find the performance required to achieve it.

Constraints

- $0 \leq R, G \leq 4500$
- All input values are integers.

Input

Input is given from Standard Input in the following format:

R

G

Output

Print the performance required to achieve the objective.

Input

2002
2017

Output

2032

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Amir's current rating is 2002.

If his performance in the contest is 2032, his rating will be the average of 2002 and 2032, which is equal to the desired rating, 2017.

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QUESTION #3:

Sauban and Maths

Sauban was given an integer 1. He can perform following operations to change its value:

1. Operation A: Double the integer.
2. Operation B: Increase the value of integer by K.

Sauban need to perform these operations N times in total. Find the minimum value of the integer that he can get after performing N operations.

Constraints

- 1 ≤ N, K ≤ 10
- All input values are integers.

Input

Input is given from Standard Input in the following format:

N

K

Output

Print the minimum possible value displayed in the board after N operations.

Sample Input

3

4

Sample Output

10

The value will be minimized when the operations are performed in the following order:

A, A, B, B.

In this case, the value will change as follows: 1 → 2 → 4 → 7 → 10.

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QUESTION #4:

Saad and Array

Saad manages programming contests. He sets up the automated tools for program testing. But unfortunately, he has been locked out from his PC. He needs to write a program to unlock it. Help him by writing the following program:

Given an array of 'n' integers (**n is always even**), print the first half as it is, but print the reverse of the other half.
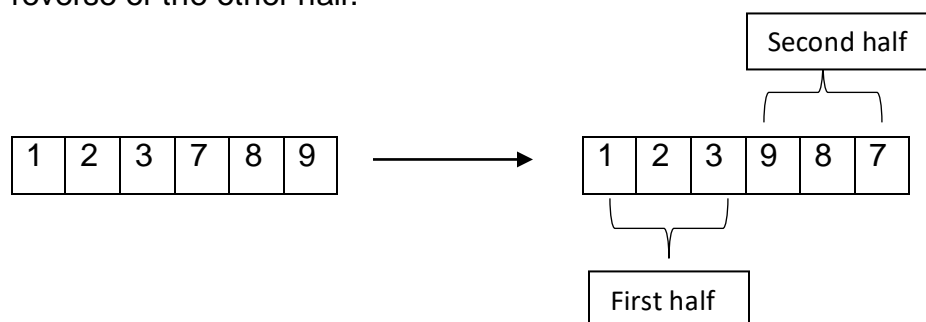
Constraints

- $2 \leq N \leq 100$
- N is **always even.**
- Array elements are integers.

Input

The first list contains *n*. The next line contains *n* elements of array.

Output

Print array element in the order as specified by the problem statement.

Sample Input
8
1 2 3 4 5 6 7 8

Output
1 2 3 4 8 7 6 5

Problem setters: Amir Qadir & Amar Kumar

Sample Input 2

10

1 2 3 4 5 10 9 8 7 6

Output 2

1 2 3 4 5 6 7 8 9 10

QUESTION #5:

IQ TEST

Shakeeb is preparing to pass IQ test. The most frequent task in this test is to find out which one of the given n numbers differs from the others. **Shakeeb** observed that one number usually differs from the others in evenness. Help **Shakeeb** — to check his answers, he needs a program that among the given n numbers finds one that is different in evenness.

Note: 'Evenness' refers to the parity of the number. It is either odd or even. The parity of 7 is odd whereas parity of 2 is even.

Input

The first line contains integer n (3 ≤ n ≤ 100) — amount of numbers in the task. The second line contains n space-separated natural numbers, not exceeding 100. It is guaranteed, that exactly one of these numbers differs from the others in evenness.

Output

Output index of number that differs from the others in evenness. Numbers are numbered from 1 in the input order.

Sample Input
5
2 4 7 8 10
Output
3

Sample Input 2

4
1 2 1 1
Output 2
2

Problem setters: Amir Qadir & Amar Kumar