Problem E. Fibonacci Sequence

A sequence of numbers a1, a2,…, ai,… is called Fibonacci, if for all i≥3 it is true that ai = ai − 1 + ai − 2, that is, each member of the sequence (starting from the third) is equal to the sum of the two previous ones.

It is clear that by specifying different numbers a1 and a2 we can obtain different such sequences, and any Fibonacci sequence is uniquely defined by its two first terms.

We will solve the inverse problem. You will be given a number N and two members of the sequence: aN and aN + 1. You need to write a program that finds a1 and a2 by their values.

Input data
The number N and the values of two members of the sequence are entered: aN and aN + 1 (1≤N≤30, the members of the sequence are integers, modulo not exceeding 100)

Output
Print two numbers - the values of the first and second members of this sequence.

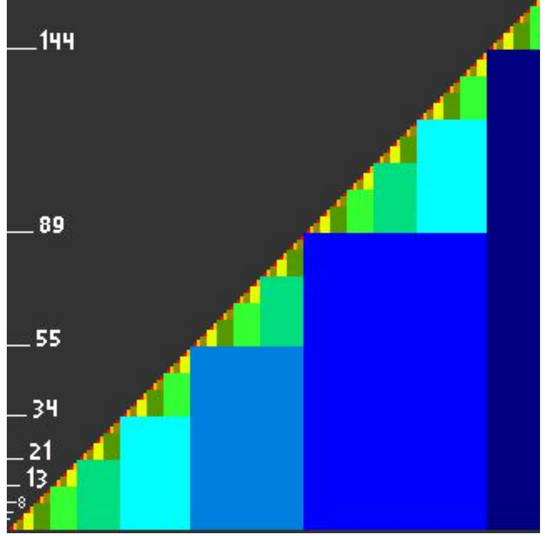
Examples of input data
4
3 5

output
11

```
int N; // 4
int a; // 3
int b; // 5
int initialNum;
// 4th term in sequence of two numbers, 3 and 5,
// need to find two initial numbers

std::cin >> N;
std::cin >> a >> b;

  for (int i = 1; i < N;i++) {
     initialNum = b - a; // b = 34, a = 21 . InitialNum = 13
     b = a;
     a = initialNum;
  }
  std::cout<< a << " " << b << std::endl;
```



1 1 2 3 5 8 13 21 34 55…

8
21 34

1 1

---

3 3 6 9 15 24 39

6
24 39

3 3

```
std::cin >> N;
std::cin >> a >> b;

  for (int i = 1; i < N;i++) {
     a = b - a; // b = 34, a = 21 . a = 13
     b = b - a;

  }
  std::cout<< a << " " << b << std::endl;
```

```
std::cin >> N;
std::cin >> a >> b;

  while ( N > 1 ) {
     a = b - a; // b = 34, a = 21 . a = 13
     b = b - a;
     N--;
  }
  std::cout<< a << " " << b << std::endl;
```