

Mini Exam: Arrays

You can check your solutions here: <https://judge.softuni.bg/Contests/3171/Additional-Exercises>.

1. Something in Common

Write a program, that **compares the elements of two given arrays**. Compare the elements of the **second array** to the **first** and **print** on the console **only the equal ones** in the order you found it.

Examples

Input	Output
Be friend 2 me 5 Hi 2 friend	2 friend
Y in t for q in q 11 for	in q for
What passion is coding coding is passion	coding is passion

2. Everything in Common

You are given **two arrays of integers**. Compare them and according to the case whether all of their **elements are equal**, **print** a message on the console:

- If they are **identical**:
"Arrays are identical."
- If not:
"Arrays are not identical."

In case the arrays are **identical**, print on a new line the **sum** of all elements in **one of the arrays** with the message:

"Sum: {sum}"

In the other case, print a message pointing the **first index** where the arrays **become different** in the format:

"Found difference at {index} index"

Examples

Input	Output
16 21 29 16 21 29	Arrays are identical. Sum: 66
5 4 3 2 1 5 4 3 3 1	Arrays are not identical. Found difference at 3 index
11 110	Arrays are not identical. Found difference at 0 index

3. Nothing in Common

You are given an **array of integers** on the first line of the input and a **number** on the second. You need to find **all the unique pairs of any two elements** in the array, whose **sum is equal to the given number**.

Examples

Input	Output
2 7 5 4 11 22 9	2 7 5 4
13 20 50 0 7 14 6 20	13 7 20 0 14 6