### Problem 1. Compare arrays

Write a program that reads two number arrays of size N from the console and compares them element by element.

##### Input:

* On the first line you will receive the number N
* On the next N lines the numbers of the first array will be given
* On the next N lines the numbers of the second array will be given

##### Output:

Print Equal if the two arrays are the same and Not equal if they are not

##### Examples:

| Input | Output |
| --- | --- |
| 3 1 2 3 1 2 3 | Equal |

| Input | Output |
| --- | --- |
| 3 2 4 6 6 4 2 | Not equal |

### Problem 2. Compare Character Arrays Lexicographically

Write a program that compares two arrays with all of their elements being a single string character (like a string) lexicographically (letter by letter). Research how to convert string to array.

##### Input:

* On the first line you will receive the first array as string
* On the second line you will receive the second array as string

##### Output:

* Print First if the first array is lexicographically smaller
* Print Second if the second array is lexicographically smaller
* Print Equal if the arrays are equal

##### Examples:

| Input | Output |
| --- | --- |
| telerik teleric | Second |

| Input | Output |
| --- | --- |
| own owned | First |

| Input | Output |
| --- | --- |
| omg omg | Equal |

### Problem 3. Maximum Sequence

Write a program that finds the length of the maximum sequence of equal elements in an array of numbers.

##### Examples:

| Input | Output |
| --- | --- |
| 2 1 1 2 3 3 2 2 2 1 | 3 |

### Problem 4. Is Array Sorted?

Write a program that determines if an array of numbers is sorted in increasing order.

##### Examples:

| Input | Output |
| --- | --- |
| 1 2 4 8 12 34 200 2000 | Yes |

| Input | Output |
| --- | --- |
| 7 8 9 10 11 12 11 13 9 | No |

### Problem 5. Find Two Biggest Numbers

Write a program that finds the two biggest numbers from an array of integers

##### Examples:

| Input | Output |
| --- | --- |
| 8 2 1 3 5 8 9 11 2 5 | 11 9 |

| Input | Output |
| --- | --- |
| 8 7 8 11 7 11 5 8 10 | 11 11 |

### Problem 6. Is Array Symmetric

Write a program that finds if an array of numbers is symmetric - that is, the first number is equal to the last, the second - to the second last and so on

##### Examples:

| Input | Output |
| --- | --- |
| 1 2 3 4 4 3 2 1 | Yes |

| Input | Output |
| --- | --- |
| 7 8 9 8 7 | Yes |

| Input | Output |
| --- | --- |
| 3 4 5 3 4 5 | No |

### Problem 7. Is Array in Wave Form

Write a program that determines if an array of numbers is in Wave Form -  
e.g. first > second < third > fourth < fifth > ...

##### Examples:

| Input | Output |
| --- | --- |
| 2 1 2 1 2 1 2 | Yes |

| Input | Output |
| --- | --- |
| 7 3 5 2 8 4 | Yes |

| Input | Output |
| --- | --- |
| 2 1 3 4 2 3 | No |

### Problem 8. Negative-Positive Sort

Write a program that moves all negative numbers to the beginning and all positive to the end, without changing the order of positive negative

##### Examples:

| Input | Output |
| --- | --- |
| 7 2 -2 1 -5 4 5 -3 1 | -2 -5 -3 7 2 1 4 5 1 |

### Problem 9. Print Maximum Increasing Subsequence

Write a program that prints the maximum length increasing subsequence to the console. If two or more are of the same length, print the last one

##### Examples:

| Input | Output |
| --- | --- |
| 6 7 3 8 1 9 4 5 6 2 1 3 | 4 5 6 |

| Input | Output |
| --- | --- |
| 1 2 3 4 3 1 9 4 5 6 11 | 4 5 6 11 |

### Problem 10. Repeating Numbers

Write a program that finds the repeating number. All other numbers occur only once.

##### Examples:

| Input | Output |
| --- | --- |
| 1 2 3 4 5 6 5 8 9 | 5 |

### Problem 11. Pairs

Write a program that find all pairs of numbers whose sum is equal to a given number. On the first line you will receive the target sum, on the second line - the array.

##### Examples:

| Input | Output |
| --- | --- |
| 6 1 2 3 4 3 6 5 8 3 9 | 1, 5 2, 4 3, 3 3, 3 3, 3 |