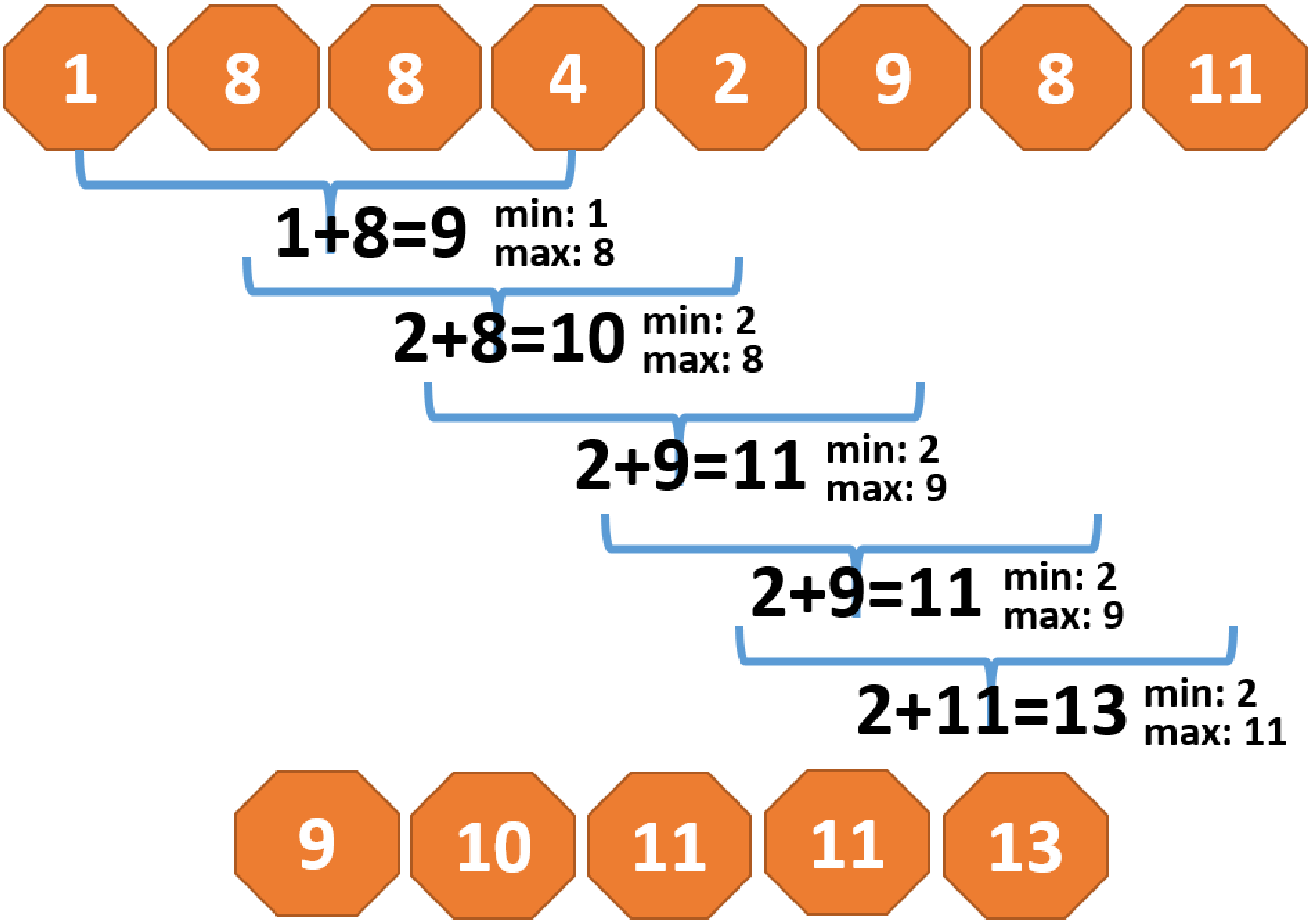
Problem 1 – MinMax

You are given a list of **N** numbers. You are also given a number **K**.

For each **K consecutive numbers** (from left to right) in the given list find **the sum of the minimum and the maximum value** in the subsequence of these **K** numbers.

Output all the sums obtained **separated by a comma** ('`,`') in order of appearance.

Below is an example where N=8, K=4 and the numbers are `1, 8, 8, 4, 2, 9, 8` and `11`. The answer is `9, 10, 11, 10, 13`.



Input

On the first line (`params[0]`) there will be the number **N.**

On the second line (`params[1]`) there will be the number **K**.

On the third line (`params[2]`) there will be a string with **N** integer numbers separated by a single space (' ').

The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

Return (or console.log) a single line with a string containing the elements of the obtained list separated by a comma ('`,`').

Sample solution code (in JavaScript)

```
function solve(params) {
    var N = parseInt(params[0]),
        K = parseInt(params[1]),
        numbersAsString = params[2];

    // Your solution here

    console.log('Your answer should be printed on the console');
}
```

Constraints

- **N** will be integer number between **1** and **100**, inclusive.
- Each number in the given list will be between -1000000000 and 1000000000.
- **K** will be integer number between **1** and **N**, inclusive.
- Allowed working time for your program: **0.25 seconds**.
- Allowed memory: **32 MB**.

Examples

Input	Output

4
2
1 3 1 8
	4,4,9

Input	Output

5
3
7 7 8 9 10
	15,16,18

Input	Output

8
4
1 8 8 4 2 9 8 11
	9,10,11,11,13