Lab: Advanced Functions

Problems for in-class lab for the "JavaScript Advanced" course @ SoftUni. Submit your solutions in the SoftUni judge system at https://judge.softuni.bg/Contests/330/.

1. Aggregates

Write a JS program that uses a **reducer** function to **display** information about an **input array**.

Input

You will receive an array of numeric values.

Output

The output should be the **printed** on the console. Display the **sum** of all elements in the array, the value of the smallest, the value of the biggest, the product of all elements and a string of all elements joined together.

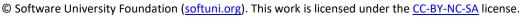
Examples

2. Currency Format

Write a higher-order JS function that fixes some of the parameters of another function. Your program will receive a function that takes 4 parameters and returns a formatted string (a monetary value with currency symbol). Your task is to return another function that only takes one parameter and returns the same formatted string.

This is the function you will receive:

```
currencyFormatter
function currencyFormatter(separator, symbol, symbolFirst, value) {
    let result = Math.trunc(value) + separator;
    result += value.toFixed(2).substr(-2,2);
    if (symbolFirst) return symbol + ' ' + result;
    else return result + ' ' + symbol;
}
```

















Set the following parameters to fixed values:

```
separator: ","
symbol: "$"
```

symbolFirst: true

The final parameter **value** is the one that the returned function will receive.

Input

You will receive a **function** parameter.

Output

You need to **return a function** that takes one parameter – **value**.

Examples

```
Sample Input
let dollarFormatter = result(currencyFormatter);
console.log(dollarFormatter(5345));
console.log(dollarFormatter(3.1429)); // $ 3,14
console.log(dollarFormatter(2.709)); // $ 2,71
```

3. Command Processor

Write a JS program that keeps a string inside it's context and can execute different commands that modify or output the string on the console.

```
append(str) – add str to the end of the internal string
```

removeStart(n) – remove the first n characters from the string, n is an integer

removeEnd(n) – remove the last n characters from the string, n is an integer

print - output the stored string to the console

Input

You will receive an array of strings. Each element is a command that may be a single word or contain an argument, separated by space.

Output

Whenever you receive the command **print**, output should be the **printed** on the console. Any other operations are carried onto the internal storage of the function.

Examples

Sample Input	Output
['append hello',	loa
'append again',	
'removeStart 3',	
'removeEnd 4',	















'print']	
['append 123',	34
'append 45',	
'removeStart 2',	
'removeEnd 1',	
'print']	

4. Max Element

Write a JS program that takes an array of numeric elements as input and returns the largest element of the array.

Input

You will receive an array of numbers.

Output

The **output** should be the **return** value of your function. It represents the **largest element** of the array.

Examples

Sample Input	Output
[10, 20, 5]	20
[1, 44, 123, 33]	123

5. Next Article

Write a JS program that sequentially displays articles on a web page when the user clicks a button. You will receive an array of strings that will initialize the program. You need to return a function that keeps the initial array in its closure and every time it's called, it takes the first element from the array and displays it on the web page, inside a div with ID "content". If there are no more elements left, your function should do nothing.

HTML and JavaScript Code

You are given the following **HTML** code:

```
article.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Next Article</title>
  <style>div{width:600px; text-align: center; font-size: 1.5em} article{border: 2px
solid blue; padding: 2em; margin: 1em}</style>
  <script src="https://code.jquery.com/jquery-3.1.1.min.js" integrity="sha256-</pre>
hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8=" crossorigin="anonymous"></script>
  <script src="next-article.js"></script>
</head>
<body>
```



















```
<div id="content"></div>
<div><button onclick="showNext()">Show Next Article</button></div>
<script>
  let articles =[
    "Cats are the most popular pet in the United States: There are 88 million pet
cats and 74 million dogs.",
    "A group of cats is called a clowder.",
    "Cats have over 20 muscles that control their ears.",
    "A cat has been mayor of Talkeetna, Alaska, for 15 years. His name is Stubbs.",
    "The world's largest cat measured 48.5 inches long."
    ];
    let showNext = getArticleGenerator(articles);
    </script>
    </body>
    </html>
```

It comes together with the following JavaScript code:

```
next-article.js

function getArticleGenerator(articles) {
    // TODO
}
```

Your function will be called automatically, there is **no need** to attach any event listeners.

Input

You will receive and array of strings.

Output

Return a **function** that displays the array elements on the web page.

Examples

