# Lab: Generator Functions and Iterators

Problems for in-class lab for the [“JavaScript Advanced” course @ SoftUni](https://softuni.bg/courses/javascript-advanced). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/345/>.

## Reverse Iterator

Write JS function that takes an array as parameter and returns an Iterator object. The Iterator must iterate over the items of the array in reverse order.

### Input / Output

Your function needs to take an array as a parameter. As output, **return** an object as described in the Iterator JavaScript Protocol.

### Examples

|  |  |
| --- | --- |
| Sample Input | Output |
| let iterator = reverseArrayIterator([10, 20, 30]);  while (true) {  let item = iterator.next();  if (item.done) break;  console.log(item.value);  } | 30  20  10 |

## Iterable

Write a JS function that takes an array as parameter and returns an Iterable object. The object must iterate over the items of the array in reverse order.

### Input / Output

Your function needs to take an array as a parameter. As output, **return** an object as described in the Iterable JavaScript Protocol.

### Examples

|  |  |
| --- | --- |
| Sample Input | Output |
| for (let item of reverseArrayIterable([10, 20, 30])) {  console.log(x);  } | 30  20  10 |

## Reverse Generator

Write a JS **Generator** function that takes an array as parameter and **yields** the elements of the array in reverse order.

### Input / Output

Your function needs to take an array as a parameter. As output, **yield** an element of the array.

### Examples

|  |  |
| --- | --- |
| Sample Input | Output |
| let arr = [10, 20, 30];  for (let item of reverseArrayGenerator(arr)) {  console.log(item);  } | 30  20  10 |

## Iterate HTML Tags

Write a JS **Generator** function that takes a string as parameter and **yields** all HTML tags from that string.

### Input / Output

Your function needs to take a string as a parameter. As output, **yield** a containing an HTML tag.

### Examples

|  |  |
| --- | --- |
| Sample Input | Output |
| let html = `<html><body>  <p align='center'><span lang='en'>Hello</span>, HTML  </p> Bye, bye</body></html>`;  for (let tag of extractTags(html)) {  console.log(tag);  } | <html>  <body>  <p align='center'>  <span lang='en'>  </span>  </p>  </body>  </html> |