

Problem List

DescriptionEditorialSolutionsSubmissions

2803. Factorial Generator

Premium

Solved

Easy

Write a generator function that takes an integer `n` as an argument and returns a generator object which yields the **factorial sequence**.

The **factorial sequence** is defined by the relation $n! = n * (n-1) * (n-2) * \dots * 2 * 1$.

The factorial of 0 is defined as 1.

Example 1:

Input: `n = 5`

Output: `[1,2,6,24,120]`

Explanation:

```
const gen = factorial(5)
gen.next().value // 1
gen.next().value // 2
gen.next().value // 6
gen.next().value // 24
gen.next().value // 120
```

Example 2:

Input: `n = 2`

Output: `[1,2]`

Explanation:

```
const gen = factorial(2)
gen.next().value // 1
gen.next().value // 2
```

Example 3:

Input: `n = 0`

Output: `[1]`

Explanation:

```
const gen = factorial(0)
gen.next().value // 1
```

Constraints:

- `0 <= n <= 18`

Seen this question in a real interview before?

1/5

Yes

No

Accepted 756 | Submissions 882 | Acceptance Rate 85.7%

Discussion (0)

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JavaScriptAuto

```
1 /**
2  * @param {number} n
3  * @yields {number}
4  */
5  function* factorial(n) {
6
7      if (n === 0) {
8          yield 1;
9      }
10     else {
11         let seq = 1;
12         for (let i = 1; i <= n; i++) {
13             seq *= i;
14             yield seq;
15         }
16     }
17 }
18 
```

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Testcase

Test Result

Case 1

Case 2

Case 3

+

5

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