Problem 2803: Factorial Generator

Problem Information

Difficulty: Easy
Acceptance Rate: 86.09%
Paid Only: Yes

Problem Description

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) * ... * 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`

Code Snippets

JavaScript:

```
/**
* @param {number} n
* @yields {number}
*/
function* factorial(n) {

};

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

TypeScript:

```
function* factorial(n: number): Generator<number> {

};

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