2629. Function Composition

Description

Given an array of functions `[f 1, f 2, f 3, ..., f n]`, return a new function `fn` that is the **function composition** of the array of functions.

The **function composition** of `[f(x), g(x), h(x)]` is `fn(x) = f(g(h(x)))`.

The **function composition** of an empty list of functions is the **identity function** `f(x) = x`.

You may assume each function in the array accepts one integer as input and returns one integer as output.

Example 1:

```
Input: functions = [x => x + 1, x => x * x, x => 2 * x], x = 4
Output: 65
Explanation:
Evaluating from right to left ...
Starting with x = 4.
2 * (4) = 8
(8) * (8) = 64
(64) + 1 = 65
```

Example 2:

```
Input: functions = [x => 10 * x, x => 10 * x, x => 10 * x], x = 1
Output: 1000
Explanation:
Evaluating from right to left ...
10 * (1) = 10
10 * (10) = 100
10 * (100) = 1000
```

Example 3:

```
Input: functions = [], x = 42
Output: 42
Explanation:
The composition of zero functions is the identity function
```

Constraints:

- `-1000 <= x <= 1000`
- `0 <= functions.length <= 1000`
- all functions accept and return a single integer