

2625. Flatten Deeply Nested Array

Description

Given a **multi-dimensional** array `arr` and a depth `n`, return a **flattened** version of that array.

A **multi-dimensional** array is a recursive data structure that contains integers or other **multi-dimensional** arrays.

A **flattened** array is a version of that array with some or all of the sub-arrays removed and replaced with the actual elements in that sub-array. This flattening operation should only be done if the current depth of nesting is less than `n`. The depth of the elements in the first array are considered to be `0`.

Please solve it without the built-in `Array.flat` method.

Example 1:

Input
arr = [1, 2, 3, [4, 5, 6], [7, 8, [9, 10, 11], 12], [13, 14, 15]]
n = 0

Output
[1, 2, 3, [4, 5, 6], [7, 8, [9, 10, 11], 12], [13, 14, 15]]

Explanation
Passing a depth of n=0 will always result in the original array. This is because the smallest possible depth of a subarray (0) is not less than n=0. Thus, no subarray should be flattened.

Example 2:

Input
arr = [1, 2, 3, [4, 5, 6], [7, 8, [9, 10, 11], 12], [13, 14, 15]]
n = 1

Output
[1, 2, 3, 4, 5, 6, 7, 8, [9, 10, 11], 12, 13, 14, 15]

Explanation
The subarrays starting with 4, 7, and 13 are all flattened. This is because their depth of 0 is less than 1. However [9, 10, 11] remains unflattened because its depth is 1.

Example 3:

Input
arr = [[1, 2, 3], [4, 5, 6], [7, 8, [9, 10, 11], 12], [13, 14, 15]]
n = 2

Output
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15]

Explanation
The maximum depth of any subarray is 1. Thus, all of them are flattened.

Constraints:

- `0 <=` count of numbers in `arr` `<= 105`
- `0 <=` count of subarrays in `arr` `<= 105`
- `maxDepth <= 1000`
- `-1000 <=` each number `<= 1000`
- `0 <= n <= 1000`

