

# Problem 254: Factor Combinations

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 50.42%

**Paid Only:** Yes

**Tags:** Backtracking

## Problem Description

Numbers can be regarded as the product of their factors.

\* For example,  $8 = 2 \times 2 \times 2 = 2 \times 4$ .

Given an integer  $n$ , return all possible combinations of its factors. You may return the answer in **any order**.

**Note** that the factors should be in the range  $[2, n - 1]$ .

**Example 1:**

**Input:**  $n = 1$  **Output:** []

**Example 2:**

**Input:**  $n = 12$  **Output:** [[2,6],[3,4],[2,2,3]]

**Example 3:**

**Input:**  $n = 37$  **Output:** []

**Constraints:**

$1 \leq n \leq 10^7$

## Code Snippets

### C++:

```
class Solution {  
public:  
    vector<vector<int>> getFactors(int n) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public List<List<Integer>> getFactors(int n) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def getFactors(self, n: int) -> List[List[int]]:
```