



Factorials Less than or Equal to n

Difficulty: **Easy**Accuracy: **48.96%**Submissions: **120K+**Points: **2**

A number **n** is called a factorial number if it is the factorial of a positive integer. For example, the first few factorial numbers are 1, 2, 6, 24, 120,



Given a number **n**, the task is to return the list/vector of the factorial numbers smaller than or equal to n.

Examples:

Input: n = 3**Output:** 1 2

Explanation: The first factorial number is 1 which is less than equal to n. The second number is 2 which is less than equal to n, but the third factorial number is 6 which is greater than n. So we print only 1 and 2.

Input: n = 6**Output:** 1 2 6

Explanation: The first three factorial numbers are less than equal to n but the fourth factorial number 24 is greater than n. So we print only first three factorial numbers.

Constraints:

 $1 \leq n \leq 10^{18}$ [Try more examples](#)

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C++ (g++ 5.4)▼

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```
1 ☐ // } Driver Code Ends
7 // User function Template for C++
8 class Solution {
9     public:
10    vector<long long> factorialNumbers(long long n) {
11        // Write Your Code here
12        vector<long long>v;
13        long long fact= 1;
14        for(long long i= 1;i<= n;i++){
15            fact= fact*i;
16            v.push_back(fact);
17            if(v[i-1]>n){
18                v.pop_back();
19                break;
20            }
21        }
22        return v;
23    }
24 };
25 ☐ // } Driver Code Ends
```

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