

# Problem 1780: Check if Number is a Sum of Powers of Three

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 79.34%

**Paid Only:** No

**Tags:** Math

## Problem Description

Given an integer `n`, return `true` \_if it is possible to represent\_`n` \_as the sum of distinct powers of three.\_ Otherwise, return `false`.

An integer `y` is a power of three if there exists an integer `x` such that `y == 3<sup>x</sup>`.

**Example 1:**

**Input:** n = 12 **Output:** true **Explanation:** 12 = 3<sup>1</sup> + 3<sup>2</sup>

**Example 2:**

**Input:** n = 91 **Output:** true **Explanation:** 91 = 3<sup>0</sup> + 3<sup>2</sup> + 3<sup>4</sup>

**Example 3:**

**Input:** n = 21 **Output:** false

**Constraints:**

\* `1 <= n <= 10^7`

## Code Snippets

**C++:**

```
class Solution {  
public:  
bool checkPowersOfThree(int n) {  
  
}  
};
```

**Java:**

```
class Solution {  
public boolean checkPowersOfThree(int n) {  
  
}  
}
```

**Python3:**

```
class Solution:  
def checkPowersOfThree(self, n: int) -> bool:
```