

## 1716. Calculate Money in Leetcode Bank

Easy

Topics

Companies

Hint

Hercy wants to save money for his first car. He puts money in the Leetcode bank **every day**.

He starts by putting in  $\$1$  on Monday, the first day. Every day from Tuesday to Sunday, he will put in  $\$1$  more than the day before. On every subsequent Monday, he will put in  $\$1$  more than the **previous Monday**.

Given  $n$ , return *the total amount of money he will have in the Leetcode bank at the end of the  $n^{\text{th}}$  day*.

### Example 1:

**Input:**  $n = 4$

**Output:** 10

**Explanation:** After the 4<sup>th</sup> day, the total is  $1 + 2 + 3 + 4 = 10$ .

### Example 2:

**Input:**  $n = 10$

**Output:** 37

**Explanation:** After the 10<sup>th</sup> day, the total is  $(1 + 2 + 3 + 4 + 5 + 6 + 7) + (2 + 3 + 4) = 37$ . Notice that on the 2<sup>nd</sup> Monday, Hercy only puts in  $\$2$ .

### Example 3:

**Input:**  $n = 20$

**Output:** 96

**Explanation:** After the 20<sup>th</sup> day, the total is  $(1 + 2 + 3 + 4 + 5 + 6 + 7) + (2 + 3 + 4 + 5 + 6 + 7 + 8) + (3 + 4 + 5 + 6 + 7 + 8) = 96$ .

### Constraints:

- $1 \leq n \leq 1000$

## Python:

```
class Solution:
```

```
    def totalMoney(self, n: int) -> int:
```

```
        ans = 0
```

```
        monday = 1
```

```
        while n > 0:
```

```
            for day in range(min(n, 7)):
```

```

        ans += monday + day

        n -= 7
        monday += 1

    return ans

```

## JavaScript:

```

function totalMoney(n) {
    let ans = 0;    // Variable to store the total money earned
    let monday = 1; // Represents the amount earned on Monday

    while (n > 0) { // Continue the loop until 'n' days are exhausted
        for (let day = 0; day < Math.min(n, 7); day++) { // Iterate for each day of the week or until 'n'
            days are left
            ans += monday + day; // Increment 'ans' by the amount earned on the current day
            (monday + day)
        }

        n -= 7; // Deduct 7 days (a week) from the total number of days left
        monday++; // Increment the amount earned on Monday for the next week
    }

    return ans; // Return the total amount earned over 'n' days
}

```

## Java:

```

class Solution {
    public int totalMoney(int n) {
        int ans = 0;
        int monday = 1;

        while (n > 0) {
            for (int day = 0; day < Math.min(n, 7); day++) {
                ans += monday + day;
            }

            n -= 7;
            monday++;
        }

        return ans;
    }
}

```