

# 346. Moving Average from Data Stream

## Description

Given a stream of integers and a window size, calculate the moving average of all integers in the sliding window.

Implement the `MovingAverage` class:

- `MovingAverage(int size)` Initializes the object with the size of the window `size`.
- `double next(int val)` Returns the moving average of the last `size` values of the stream.

### Example 1:

#### Input

```
["MovingAverage", "next", "next", "next", "next"]  
[[3], [1], [10], [3], [5]]
```

#### Output

```
[null, 1.0, 5.5, 4.66667, 6.0]
```

#### Explanation

```
MovingAverage movingAverage = new MovingAverage(3);  
movingAverage.next(1); // return 1.0 = 1 / 1  
movingAverage.next(10); // return 5.5 = (1 + 10) / 2  
movingAverage.next(3); // return 4.66667 = (1 + 10 + 3) / 3  
movingAverage.next(5); // return 6.0 = (10 + 3 + 5) / 3
```

### Constraints:

- $1 \leq \text{size} \leq 1000$
- $-10^5 \leq \text{val} \leq 10^5$
- At most  $10^4$  calls will be made to `next`.

