

<https://course.acciojob.com/idle?question=d1131c24-e830-43c2-b55b-5a7d5d7c549a>

● EASY

● Max Score: 30 Points



Maximum Average Subarray I

You are given an integer array `nums` consisting of `n` elements, and an integer `k`.

Find a contiguous subarray whose length is equal to `k` that has the maximum average value and return this value. The answer should be upto 5 decimal places.

Input Format

The first line contains integer `n` denoting the size of array.

The second line contains space-separated numbers of the array.

The last line contains the integer `k`.

Output Format

Print the maximum average value of the contiguous subarray whose length is `k`. The answer should be upto 5 decimal places.

Example 1

Input

```
6
1 12 -5 -6 50 3
4
```

Output

12.75000

Explanation

Maximum average is $(12 - 5 - 6 + 50) / 4 = 51 / 4 = 12.75$

Example 2

Input

1
5
1

Output

5.00000

Constraints

`1 <= arr.size() <= 1000`

Topic Tags

- Sliding Window
- Arrays

My code

```
// n java
import java.util.Scanner;
import java.util.Vector;
```

```

class Solution{
    public static void findMaxAverage(int n, int[] nums, int k) {
        // Your code here
        double ans=0;
        int sum=0;
        for(int i=0;i<k-1;i++)
            sum+=nums[i];
        for(int i=0;i<=n-k;i++)
        {
            sum+=nums[i+k-1];
            double t=1.0*sum/k;
            if(t>ans)
                ans=t;
            sum-=nums[i];
        }
        System.out.format("%.5f",ans);
    }
}

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i =0; i<n; i++){
            arr[i]=sc.nextInt();
        }
        int k = sc.nextInt();
        Solution.findMaxAverage(n, arr, k);
    }
}

```

}