My solution

1. Calculate sum of first k item
2. Slide from k th item to the end
3. Calculate new sum = old sum + kth item – (k – i) item
4. Find the max average

World solution:

**Intuition**

It is a basic sliding window problem with window of constant size.

**Approach**

Maintain a temp to store the average of first k elements traverse through the array until last k elements update the m value if current temp is greater than m. return m/k

**Complexity**

* Time complexity:O(N)
* Space complexity:O(1)

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**Code**

class Solution {

public:

double findMaxAverage(vector<int>& nums, int k) {

double m = 0, temp = 0;

for(int i=0; i<k; i++) temp += (double)nums[i]; m = temp;

int start = 0, end = k;

while(end < nums.size()){

temp += (double)nums[end] ; temp -= (double)nums[start];

start++; end++;

if(m < temp) m = temp;

}

return m/k;

}

};