Question 2

Due on 2019-08-22, 23:59 IST
When you keep track of stock prices, or your weight during a diet programme, the daily prices or weights fluctuate a lot. One way to identify the general trend is to keep track of the average over the last 3 days, for example. This technique often smooths out the fluctuations, and makes the trend clearer. This technique is called "moving average".

In this question, you have to output the "moving average" of a sequence of non-negative numbers. The moving average is the sequence of averages of the last 3 entries. For the first 2 numbers, no average is output.

For example, if the sequence of numbers is

a1, a2, a3, a4, a5

and k=3, then the 3-moving average is

(a3+a2+a1)/3, (a4+a3+a2)/3, (a5+a4+a3)/3.

Input
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The input is a sequence of non-negative floating point numbers, terminated by a -1. The -1 is not part of the sequence. There will be at least 3 numbers in the sequence.

Output
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You have to output the moving average of the sequence. The output should be printed correct to one digit after the decimal.

Sample Input 1
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70.8 70.9 71.2 70.7 70.2 -1

Sample Output 1
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71.0 70.9 70.7

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 0 1 -1</td>
<td>1.0 1.0</td>
</tr>
<tr>
<td>1 1 2 3 5 8 13 21 -1</td>
<td>1.3 2.0 3.3 5.3 8.7 14.0</td>
</tr>
</tbody>
</table>

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```
#include <stdio.h>

int main()
```
```c
float first;
float second;
float third;
float curr;

scanf("%f", &first);
scanf("%f", &second);
scanf("%f", &third);
printf("%.1f ", (first+second+third)/3);

scanf("%f", &curr);

while (curr != -1) {
    first = second;
    second = third;
    third = curr;
    printf("%.1f ", (first+second+third)/3);
    scanf("%f", &curr);
}

return 0;
```