Week 3: Assignment 3 - Question 1

Find moving average

In this question, you have to output the "two moving average" of a sequence of non-negative numbers.

The two moving average is the sequence of averages of the last 2 entries.
For the first number, no average is output.

For example, if the sequence of numbers is a_1, a_2, a_3, a_4, a_5
The 2-moving average is $\frac{(a_1+a_2)}{2}, \frac{(a_2+a_3)}{2}, \frac{(a_3+a_4)}{2}, \frac{(a_4+a_5)}{2}$

Input

The input is a sequence of non-negative numbers, terminated by a -1.
There will be at least 3 numbers in the sequence.

Note: The -1 is not part of the sequence. It is just to indicate that the input has ended.

Output

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

Hint : Use the format specifier "%.1f" inside printf.

Sample Input 1
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1 3 2 4 -1

Sample Output 1

2.0 2.5 3.0

Explanation

(1+3)/2 = 2
(3+2)/2 = 2.5
(2+4)/2 = 3