Problem 7 : Cost minimization

Problem

Mr. Chachi has to go from one city to another on a highway. There are n cities along the highway, numbered from 1 to n. The highway is totally straight - there are no turns or twists on the highway. The distance between cities i and $i+1$ is d_i miles. Mr. Chachi has a motorbike, by which he has to go from city 1 to city n. He starts with x litres of petrol in his motorbike. The capacity of the petrol tank is C litres, and the mileage of the motorbike is M miles per litre. Petrol pumps are present only in the cities lying along the highway. However, at any petrol pump, Mr. Chachi has only two options: either get the petrol tank filled up to its full capcacity, or not fill any petrol at all. Cost of petrol is Rupees y per litre. However, Mr. Chachi is a big miser, and therefore he will like to minimize his expenses for travelling from city 1 to city n. In certain cases, however, it may not be possible for Mr. Chachi to travel to city n.

Input

The input consist of several test cases. Each test case appears on two lines. First line gives the values of n, x, M, C and y, separated by a blank space. The next line has $n-1$ numbers, and give values of $d_1, d_2, \ldots, d_{n-1}$. The input is terminated by the case 0 0 0 0 0. This case should not be processed. All input numbers are integers.

Output

For each case, print the minimum possible expense Mr. Chachi can incur in his travel. The output should have exactly two digits after the decimal point. If it is not possible to travel from city 1 to city n, output -1.

Sample Input

```
4 0 10 1 20
10 10 10
4 0 9 1 20
10 10 10
0 0 0 0 0
```

Sample Output

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60.00
-1
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