4/18/2018 Problem - B - Codeforces





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PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

B. Messages

time limit per test: 1 second memory limit per test: 256 megabytes

input: standard input output: standard output

There are n incoming messages for Vasya. The i-th message is going to be received after t_i minutes. Each message has a cost, which equals to A initially. After being received, the cost of a message decreases by B each minute (it can become negative). Vasya can read any message after receiving it at any moment of time. After reading the message, Vasya's bank account receives the current cost of this message. Initially, Vasya's bank account is at 0.

Also, each minute Vasya's bank account receives $C \cdot k$, where k is the amount of received but unread messages.

Vasya's messages are very important to him, and because of that he wants to have all messages read after T minutes.

Determine the maximum amount of money Vasya's bank account can hold after T minutes.

Input

The first line contains five integers n, A, B, C and T ($1 \le n$, A, B, C, $T \le 1000$).

The second string contains n integers t_i ($1 \le t_i \le T$).

Output

Output one integer — the answer to the problem.

Examples

<u>Tinkoff Internship Warmup Round</u> <u>2018 and Codeforces Round #475</u> (<u>Div. 2</u>)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

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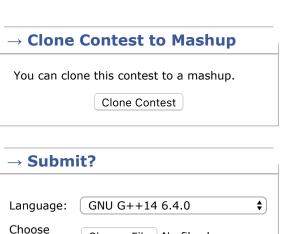


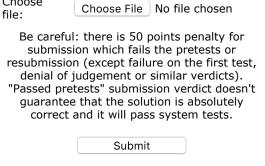
Note

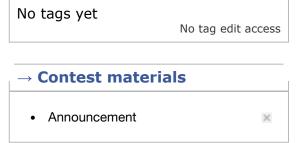
In the first sample the messages must be read immediately after receiving, Vasya receives A points for each message, $n \cdot A = 20$ in total.

In the second sample the messages can be read at any integer moment.

In the third sample messages must be read at the moment T. This way Vasya has 1, 2, 3, 4 and 0 unread messages at the corresponding minutes, he gets 40 points for them. When reading messages, he receives $(5 - 4 \cdot 3) + (5 - 3 \cdot 3) + (5 - 2 \cdot 3) + (5 - 1 \cdot 3) + 5 = -5$ points. This is 35 in total.







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→ Problem tags

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