**Problem B - Jocas is scheduling machines**

**Description**

Jocas got fed up of making games. He wants to be more productive to the society. Therefore, he accepted a job at a local shoe making company. His task is to control a machine that applies a finishing product to the shoes after the production phase.

Everyday Jocas receives an order that contains the number of pairs of shoes (*n*) that will be processed during the day, as well as the estimated arriving time for each pair of shoes. The machine can take *c* pairs of shoes simultaneously (called a *batch*). The time to process each batch is *T* minutes (this is called *processing time*). Then, the machine takes another *T'* minutes for be prepared for the next batch (this is called *recovery time*).

Jocas is now attending a language course in the afternoon and he wants to schedule the batches such that the last one ends as soon as possible. Could you help him?



**Task**

Given the maximum size of the batch (*c*), the processing (*T*) and recovery (*T'*) times as well as the information about the arriving time of each pair of shoes, determine the earliest time to finish the last batch. Assume that *T = T'* and that there is no need to take into account the recovery time after the processing of the last batch.

**Input**

Each test case is a single line. The first three integers are *c*, *n* and *T*. Then, *n* positive integers follows, each of which corresponds to the arriving time of a pair of shoes (this data may not be ordered). Then, other test case may follow.

**Output**

For each test case, print the earliest time to process the last batch.

**Constraints**

* *n ≤ 1000*
* *1 ≤ c ≤ n*

**Example**

**Example input:**

2 5 1 1 2 3 4 5

3 5 2 5 4 3 2 1

**Example output:**

6

8