

# Perfect Hiring

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## Problem Statement

You are the hiring manager of a startup and you are interviewing  $N$  candidates, each having an ID numbered from 1 to  $N$ . Each candidate has a score  $A_i$  calculated from their HackerRank tests. You start with patience  $P$  and lose patience  $X$  after each interview.

One by one candidates enter your room in the sequence of their ID numbers. To save time you decide to give a rating of  $(P \times A_i)$ . In the end you hire the candidate with maximum rating. Print the ID of this candidate.

**NOTE:** It is guaranteed that a unique ID gets selected.

## Input Format

The first line begins with 3 space-separated integers,  $N$ ,  $P$ , and  $X$ .

The next line contains an array  $A[]$ , containing the scores of the  $N$  candidates.

## Constraints

$$1 \leq N \leq 10^5$$

$$1 \leq P \leq 10^9$$

$$1 \leq X \leq 100$$

$$1 \leq A_i \leq 10^9$$

## Output Format

Output the ID of the Applicant who get selected.

**NOTE:** ID's are numbered from 1 to  $N$ .

## Sample Input

```
4 94 8
8 6 4 6
```

## Sample Output

```
1
```

## Explanation

Rating for Applicant 1 is  $94 \times 8 = 752$

Chance for Applicant 2 is  $86 \times 6 = 516$

Chance for Applicant 3 is  $78 \times 4 = 312$

Chance for Applicant 4 is  $70 \times 6 = 420$

So ID 1 gets selected.