

1.

Given a pointer to the head of a singly-linked list, print each *data* value from the reversed list. If the given list is empty, do not print anything.

Example

*head** refers to the linked list with *data* values $1 \rightarrow 2 \rightarrow 3 \rightarrow NULL$

Print the following:

3
2
1

Function Description

Complete the *reversePrint* function in the editor below.

reversePrint has the following parameters:

- *SinglyLinkedListNode* pointer *head*: a reference to the head of the list

Prints

The *data* values of each node in the reversed list.

Input Format

The first line of input contains *t*, the number of test cases.

The input of each test case is as follows:

- The first line contains an integer *n*, the number of elements in the list.
- Each of the next *n* lines contains a data element for a list node.

Constraints

- $1 \leq n \leq 1000$
- $1 \leq list[i] \leq 1000$, where *list*[*i*] is the *i*th element in the list.

2.

Alexa has two stacks of non-negative integers, stack *a*[*n*] and stack *b*[*m*] where index 0 denotes the top of the stack. Alexa challenges Nick to play the following game:

- In each move, Nick can remove one integer from the top of either stack *a* or stack *b*.
- Nick keeps a running sum of the integers he removes from the two stacks.
- Nick is disqualified from the game if, at any point, his running sum becomes greater than some integer *maxSum* given at the beginning of the game.
- Nick's *final score* is the total number of integers he has removed from the two stacks.

Given *a*, *b*, and *maxSum* for *g* games, find the maximum possible score Nick can achieve.

Example

a = [1, 2, 3, 4, 5]

b = [6, 7, 8, 9]

The maximum number of values Nick can remove is 4. There are two sets of choices with this result.

1. Remove 1, 2, 3, 4 from *a* with a sum of 10.
2. Remove 1, 2, 3 from *a* and 6 from *b* with a sum of 12.

Function Description

Complete the *twoStacks* function in the editor below.

twoStacks has the following parameters: - *int maxSum*: the maximum allowed sum

- *int a*[*n*]: the first stack

- *int b*[*m*]: the second stack

Returns

- *int*: the maximum number of selections Nick can make

Input Format

The first line contains an integer, *g* (the number of games). The $3 \cdot g$ subsequent lines describe each game in the following format:

1. The first line contains three space-separated integers describing the respective values of *n* (the number of integers in stack *a*), *m* (the number of integers in stack *b*), and *maxSum* (the number that the sum of the integers removed from the two stacks cannot exceed).
2. The second line contains *n* space-separated integers, the respective values of *a*[*i*].
3. The third line contains *m* space-separated integers, the respective values of *b*[*i*].

Constraints

- $1 \leq g \leq 50$
- $1 \leq n, m \leq 10^5$
- $0 \leq a[i], b[i] \leq 10^6$
- $1 \leq maxSum \leq 10^9$

Subtasks

- $1 \leq n, m, \leq 100$ for 50% of the maximum score.