Q1 - Linked List

In this lab, we're going to implement 4 basic linked list's operation.

1. push(int value) : Push a node at the tail of linked list
2. insert(int pos, int value) : Insert a node at the given position in the linked list, if given position is bigger than the length of the list, output "insert fail".
3. remove(int pos) : Remove a node at the given position in the linked list, if given position is bigger than the length of the list, output "remove fail".
4. find(int value) : Find the position of the node which it's value equals given number, if there doesn't exist such node, return -1.

Input Format

On the first line of input is a single positive integer n, telling the number of operations to follow.

You don't need to handle input.

Constraints

1 < n <= 50

Output Format

You don't need to handle output.

Sample Input 0

```
18
i 0 3
p 7
?
i 1 5
?
i 3 9
?
f 4
f 5
r 2
r 9
?
i 2 4
?
r 0
?
r 2
?
```

Sample Output 0

```
3, 7
3, 5, 7
```

```
3, 5, 7, 9
-1
1
remove fail
3, 5, 9
3, 5, 4, 9
5, 4, 9
5, 4
```