

Consider a list (`list = []`). You can perform the following commands:

1. `insert i e`: Insert integer  $e$  at position  $i$ .
2. `print`: Print the list.
3. `remove e`: Delete the first occurrence of integer  $e$ .
4. `append e`: Insert integer  $e$  at the end of the list.
5. `sort`: Sort the list.
6. `pop`: Pop the last element from the list.
7. `reverse`: Reverse the list.

Initialize your list and read in the value of  $n$  followed by  $n$  lines of commands where each command will be of the 7 types listed above. Iterate through each command in order and perform the corresponding operation on your list.

### Example

$N = 4$

`append 1`

`append 2`

`insert 1 3`

`print`

- `append 1`: Append 1 to the list,  $arr = [1]$ .
- `append 2`: Append 2 to the list,  $arr = [1, 2]$ .
- `insert 1 3`: Insert 3 at index 1,  $arr = [1, 3, 2]$ .
- `print`: Print the array.

Output:

```
[1, 3, 2]
```

### Input Format

The first line contains an integer,  $n$ , denoting the number of commands.

Each line  $i$  of the  $n$  subsequent lines contains one of the commands described above.

### Constraints

- The elements added to the list must be *integers*.

### Output Format

For each command of type `print`, print the list on a new line.

### Sample Input 0

```
12
insert 0 5
insert 1 10
insert 0 6
print
remove 6
append 9
append 1
sort
print
pop
reverse
print
```

### Sample Output 0

```
[6, 5, 10]
[1, 5, 9, 10]
[9, 5, 1]
```