Tanks Collector

Tom is a tanks player and he likes to collect premium tanks. You will **receive a list** of Tom's already owned premium vehicles **on a single line separated by ", ".** On the next **n** lines you will receive commands that could be:

- **Add, {tankName}:** Check if he already owns the wanted tank.
  - If he owns it, **print on console: "Tank is already bought"**
  - If not, **print on console: "Tank successfully bought"** and **add it** to the tank list.
- **Remove, {tankName}:** Check if he owns the tank.
  - If he owns it **print on console: "Tank successfully sold"** and **remove it** from the tank list.
  - If not **print on console: "Tank not found"**
- **Remove At, {index}:** Check if the **index** is in the range of the list.
  - If not **print on console: "Index out of range"** and continue.
  - If it's in range, **remove at the given index** and **print on console: "Tank successfully sold"**
- **Insert, {index}, {tankName}:** Check if the **index** is in range of the list and **check if he already owns the tank**.
  - If not **print on console: "Index out of range"** and continue.
  - If it's in range and he doesn't own the tank then **add the tank at the given index** and **print on console:**
    - **"Tank successfully bought"**
  - If the tank is in range and he owns it already than **print on console:**
    - **"Tank is already bought"**

After you go through all the commands you need to **print** the list **on a single line separated by ", ".**

Input

- The **first input line** will contain the **list** of **already owned tanks**.
- The **second input line** will be the **number of commands** – an **integer number** in range [0…50].
- On the **next input lines** you will be receiving commands.

Output

- As output you must print a single line containing the elements of the list, **joined** by **", "**.

Examples

Input	Output
T-34-85 Rudy, SU-100Y, STG 3	Tank successfully bought Tank successfully bought

Add, King Tiger(C) Insert, 2, IS-2M Remove, T-34-85 Rudy	Tank successfully sold SU-100Y, IS-2M, STG, King Tiger(C)

Comments
The first command gives the tank list so its splitted and added into the list. **"T-34-85 Rudy, SU-100Y, STG"** The second commands gives the number of commands that will be received. **"3"** The Add command adds the tank to the list after the necessary checks. **"Add, King Tiger(C)" – "Tank successfully bought"** The Insert commands also adds the tank at the given spot after the necessary checks. **"Insert, 2, IS-2M" – "Tank successfully bought"** The Remove command is the last one and after the checks the tank is sold. **"Remove, T-34-85 Rudy" – "Tank successfully sold"** After that we print the list on the console. **"SU-100Y, IS-2M, STG, King Tiger(C)"**

T 34, T 34 B, T92, AMX 13 57 4 Add, T 34 Remove, AMX CDC Insert, 10, M60 Remove At, 1	Tank is already bought Tank not found Index out of range Tank successfully sold T 34, T92, AMX 13 57

NOTE: Instead a tanks player, Tom could be a buyer and seller in ebay or amazon. The code would be similar.