

## Problem 3. Wizard Poker

*The world is threatened by an enemy never seen before. Your hero's weapon seems to be useless against the enemy. But your hero has a super strong arsenal full of powerful magic cards and will challenge the enemy to a card duel to the death and he needs your help to create the perfect deck.*

Write a program that **adds**, **inserts**, **removes** and **swaps** cards into a new **deck**.

On the first line, you will receive all cards as a string **separated** by ":". On all of the following lines you will receive commands, until you finally receive the **"Ready"** command, in the following format:

- **Add {card name}**
  - Adds the card to the **end** of the **deck**.
  - If the card **doesn't exist** in print **"Card not found."**
- **Insert {card name} {index}**
  - Insert the card at the **given** index of the **deck**.
  - If the card **doesn't exist** or the index is invalid print **"Error!"**
- **Remove {card name}**
  - Remove the card from the **deck**.
  - If the card **doesn't exist** in print **"Card not found."**
- **Swap {card name 1} {card name 2}**
  - **Swap** the **positions** of the cards.
  - Input will **always be valid**
- **Shuffle deck**
  - Reverse the **deck**

When you receive the **"Ready"** command print the cards in the deck **separated by a space**.

### Input

- **On the 1<sup>st</sup> line**, you will receive the arsenal of all cards available separated by ":".
- **On the next lines**, until you receive the **"Ready" command** you will receive commands to arrange your deck.

### Output

- Print the cards in your deck on a single line, separated by a single space.

## Examples

Input	Output
<pre>[`Innervate: Moonfire: Pounce: Claw: Wrath: Bite`, `Add Moonfire`, `Add Pounce`, `Add Bite`, `Add Wrath`, `Insert Claw 0`, `Swap Claw Moonfire`, `Remove Bite`, `Shuffle deck`, `Ready`]</pre>	<p>Wrath Pounce Claw Moonfire</p>
Comments	
<p>First command is Add Moofire and now our deck has one card in it.</p> <ol style="list-style-type: none"> <li>1. Moonfire Pounce</li> <li>2. Moonfire Pounce Bite</li> <li>3. Moonfire Pounce Bite Wrath</li> <li>4. Claw Moonfire Pounce Bite Wrath</li> <li>5. Moonfire Claw Pounce Bite Wrath</li> <li>6. Moonfire Claw Pounce Wrath</li> <li>7. Wrath Pounce Claw Moonfire</li> </ol>	
<pre>[`Wrath: Pounce: Lifeweaver: Exodia: Aso: Pop`, `Add Pop`, `Add Exodia`, `Add Aso`, `Remove Wrath`, `Add SineokBqlDrakon`, `Shuffle deck`, `Insert Pesho 0`, `Ready`]</pre>	<p>Card not found. Card not found. Error! Aso Exodia Pop</p>