1. You are given a list of numbers that may contain repetitive numbers. Form a set from this list and remove duplicates.

**Input**

**A space-separated list of integers**

**Output**

**create a set and print its type.**

**Example Input**

**1 2 3 2 2 4 5**

**Output**

**<class 'set'>**

2. You are given a space-separated list of the animals. Your task is to form a set from the given input, then add 'Zebra' and remove 'Lion' from the given set. After that, you need to print

**1) type of the original set**

**2) length of the original set**

**3) type of the updated set**

**4) Check whether Lion is in the updated set**

**5) Check whether Zebra in the updated set**

**Input**

**A list of the animals**

**Output**

**Add "Zebra" in the set and remove "Lion" from the set. After that, you need to print as instructed above. Print the output as given in the example below.**

**Example**

**Lion Elephant Fox Tiger Giraffe**

**Output**

**Type of the original set: <class 'set'>**

**Length of the original set: 5**

**Type of the updated set: <class 'set'>**

**Is Lion in the updated set: False**

**Is Zebra in the updated set: True**


3. You have two sets of words "Hello" and "Class". Find out the Union and Intersection of these two sets.

**Input**

The first line contains the word, Hello. The second line contains the word, Class.

**Output**

The union and intersection of the sets of the above word in two separate lines respectively.

**Example Input**

Hello

Class

**Output**

{'H', 'e' , 'l' , 'o', 'C' , 'a', 's'}

{'l'}


4. There is a sports week to be celebrated at Mojo High School. For Xth class 12 students have participated in cricket, 15 have participated in football and 6 participated in both. Find out the students who have participated in both the games.

**input**

The first line of the input contains the space separated list of the class id's of the students who participated in the cricket

The second line of the input contains the space separated list of the class id's of the students who participated in the football.

**output**

list of the students who participated in both the games

**Example input**

1 2 3 4 5 6 7 8 9 10 11 12

1 2 3 6 7 12 13 14 15 16 17 18 19 20 21

**Output**

[1,2,3,6,7,12]

5. **Write a Python program that:**
   **1.Creates two tuples: fiction and non_fiction, containing book titles.**
   **2. Converts these tuples to sets using typecasting.**
   **3. Uses set methods (union(), intersection(), difference()) to find:**
   **All unique books (union()).**
   **Books common to both genres (intersection()).**
   **Books exclusive to fiction (difference()).**
   **4. Adds new books to the fiction set using add().**
   **5. Removes a book from the non_fiction set using discard().**
   **6. Accesses a specific book in the fiction set using in operator.**