Sets:

A set is a collection which is unordered and unindexed. In Python, sets are written with curly brackets.

Create a Set:

```
thisset = {"apple", "banana", "cherry"}
print(thisset)
```

You cannot access items in a set by referring to an index or a key.

But you can loop through the set items using a for loop, or ask if a specified value is present in a set, by using the in keyword.

```
thisset = {"apple", "banana", "cherry"}
for x in thisset:
  print(x)
```

Check if "banana" is present in the set:

```
thisset = {"apple", "banana", "cherry"}

print("banana" in thisset)
```

Once a set is created, you cannot change its items, but you can add new items.

```
thisset = {"apple", "banana", "cherry"}

thisset.add("orange")

print(thisset)
```

Add multiple items to a set, using the update() method:

```
thisset = {"apple", "banana", "cherry"}
```

```
thisset.update(["orange", "mango", "grapes"])

print(thisset)
```

To determine how many items a set has, use the len() method.

```
thisset = {"apple", "banana", "cherry"}

print(len(thisset))
```

To remove a specific item in a set, use the remove(), or the discard() method.

```
thisset = {"apple", "banana", "cherry"}

thisset.remove("banana")

print(thisset)
```

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```
thisset = {"apple", "banana", "cherry"}

thisset.discard("banana")

print(thisset)
```

You can also use the pop(), method to remove an item.

```
thisset = {"apple", "banana", "cherry"}

x = thisset.pop()

print(x)

print(thisset)
```

The clear() method empties the set:

```
thisset = {"apple", "banana", "cherry"}

thisset.clear()

print(thisset)
```

The del keyword will delete the set completely:

```
thisset = {"apple", "banana", "cherry"}

del thisset

print(thisset)
```

The union() method returns a new set with all items from both sets:

```
set1 = {"a", "b" , "c"}
set2 = {1, 2, 3}

set3 = set1.union(set2)
print(set3)
```

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The update() method inserts the items in set2 into set1:

```
set1 = {"a", "b" , "c"}
set2 = {1, 2, 3}

set1.update(set2)
print(set1)
```

Both union() and update() will exclude any duplicate items.

Assignment Questions:

1) Write a program to reverse each number in a List.
2) Sum of all elements in a Tuple
3) Find Minimum element in a Tuple
4) Find Maximum element in a Tuple
5) Swap two Tuples