1: Create a set of 5 fruits and print it.

---

[2]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
print(my_set)
```

```
{'Grapes', 'Banana', 'Orange', 'Mango', 'Apple'}
```

2: Add one new fruit to your set using .add() and print the updated set.

---

[4]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
my_set.add("watermelon")
print(my_set)
```

```
{'Grapes', 'Banana', 'Orange', 'Mango', 'Apple', 'watermelon'}
```

3: Remove an existing fruit using .remove() (and explain if it errors when missing).

---

[5]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
my_set.remove("Banana")
print(my_set)
```

```
{'Grapes', 'Orange', 'Mango', 'Apple'}
```

4: Remove another fruit using .discard() (and note the difference from .remove()).

---

[6]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
my_set.discard("Apple")
print(my_set)
```

```
{'Grapes', 'Banana', 'Orange', 'Mango'}
```

5: Use .pop() to remove an arbitrary item and print the result.

---

[8]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
removed_item = my_set.pop()
print(removed_item)
print(my_set)
```

```
Grapes
{'Banana', 'Orange', 'Mango', 'Apple'}
```

6: Clear the remaining items using .clear() and show that the set is now empty.

---

[10]

0s

```
my_set = {"Mango","Apple","Banana","Orange","Grapes"}
my_set.clear()
print("Clear Set:",my_set)
```

```
Clear Set: set()
```

7: Create two sets of numbers and display their union(), intersection(), difference(), symmetric_difference().

---

[15]

0s

```
my_set1 = {1,2,3,4,5}
my_set2 = {1,2,3,4,5,6,7}
```

```
print("Union :" ,my_set1.union(my_set2))
print("Intersection :" ,my_set1.intersection(my_set2))
print("Difference :" ,my_set2.difference(my_set1))
print("symmetric_difference :" ,my_set1.symmetric_difference(my_set2))
```

```
Union : {1, 2, 3, 4, 5, 6, 7}

Intersection : {1, 2, 3, 4, 5}

Difference : {6, 7}

symmetric_difference : {6, 7}
```

8: Check if one set is a subset or superset of another, and print results.

---

[16]

0s

```
my_set1 = {1,2,3,4,5}
my_set2 = {1,2,3,4,5,6,7}

print("Is set1 a subset of set2?:", my_set1.issubset(my_set2))
print("Is set2 a superset of set1?:", my_set2.issuperset(my_set1))
```

```
Is set1 a subset of set2?: True

Is set2 a superset of set1?: True
```

9: Declare a frozenset of vowels and try adding an item — observe the immutability error.

[ ]

10: Use a loop to check membership of a user-input character in the set of vowels.

---

[18]

2s

```
Enter a character to check if it is a vowel: f

'f' is not a vowel.
```