

```
In [1]: x = {1,2,3,4,5}
        y = {4,5,6,7,8}
        z = {8,9,10}
```

```
In [2]: print(x)
        print(y)
        print(z)
```

```
{1, 2, 3, 4, 5}
{4, 5, 6, 7, 8}
{8, 9, 10}
```

```
In [3]: z-x
```

```
Out[3]: {8, 9, 10}
```

```
In [4]: x.symmetric_difference(y)
```

```
Out[4]: {1, 2, 3, 6, 7, 8}
```

```
In [5]: z^x
```

```
Out[5]: {1, 2, 3, 4, 5, 8, 9, 10}
```

```
In [6]: y^x
```

```
Out[6]: {1, 2, 3, 6, 7, 8}
```

```
In [11]: x.symmetric_difference_update(y)
```

```
In [12]: print(x)
        print(y)
        print(z)
```

```
{1, 2, 3, 7, 6, 8}
{4, 5, 6, 7, 8}
{8, 9, 10}
```

```
In [13]: x.intersection(y)
```

```
Out[13]: {6, 7, 8}
```

```
In [14]: y&z
```

```
Out[14]: {8}
```

```
In [15]: x&y&z
```

```
Out[15]: {8}
```

```
In [17]: z.intersection_update(y)
        z
```

```
Out[17]: {8}
```

```
In [18]:
```

```
a = {10,20,30,40}
b = {3,4,5,6,7,8}
c = {1,2,3,4,5,6,7,8,9}
```

```
In [19]: b.issubset(a)
```

```
Out[19]: False
```

```
In [20]: a.issuperset(b)
```

```
Out[20]: False
```

```
In [21]: a.isdisjoint(b)
```

```
Out[21]: True
```

```
In [22]: a.isdisjoint(c)
```

```
Out[22]: True
```

```
In [23]: p = {15,25,35,45}
q = {3,4,5,6,7,8}
r = {10,20,30,40}
```

```
In [24]: p.issubset(q)
```

```
Out[24]: False
```

```
In [25]: q.issuperset(r)
```

```
Out[25]: False
```

```
In [26]: r.isdisjoint(q)
```

```
Out[26]: True
```

Dictionary

```
In [28]: d = {}
d
```

```
Out[28]: {}
```

```
In [29]: type(d)
```

```
Out[29]: dict
```

```
In [30]: d1 = {1:'one', 2:'two', 3: 'three'}
d1
```

```
Out[30]: {1: 'one', 2: 'two', 3: 'three'}
```

```
In [31]: d2 = {'one' : 1, 'two':2, 'three' : 3}
d2
```

Out[31]: {'one': 1, 'two': 2, 'three': 3}

In [32]: `d2.keys()`

Out[32]: dict_keys(['one', 'two', 'three'])

In [33]: `d2.values()`

Out[33]: dict_values([1, 2, 3])

In [34]: `d2.items()`

Out[34]: dict_items([('one', 1), ('two', 2), ('three', 3)])

In [35]: `len(d2)`

Out[35]: 3

In []: