SET

```
In [1]:  S={}
         S
```

Out[1]: {}

```
In [2]:  type(S)
```

Out[2]: dict

```
In [3]:  s1={1,2,3}
         type(s1)
```

Out[3]: set

```
In [4]:  set()
```

Out[4]: set()

```
In [5]:  s2={1,2,3,4,5,6,7,8,9}
         s2
```

Out[5]: {1, 2, 3, 4, 5, 6, 7, 8, 9}

```
In [7]:  type(s2)
```

Out[7]: set

```
In [9]:  s3=s2.copy()
```

```
In [10]:  s3
```

Out[10]: {1, 2, 3, 4, 5, 6, 7, 8, 9}

```
In [11]:  s3.add(5.4)
```

```
In [12]:  s3
```

Out[12]: {1, 2, 3, 4, 5, 5.4, 6, 7, 8, 9}

```
In [13]:  s3.add('manasa')
```

```
In [14]:  s3
```

Out[14]: {1, 2, 3, 4, 5, 5.4, 6, 7, 8, 9, 'manasa'}

```
In [15]:  s3.add(1+2j)
```

```
In [16]:  s3

Out[16]:  {(1+2j), 1, 2, 3, 4, 5, 5.4, 6, 7, 8, 9, 'manasa'}

In [17]:  s3.clear()

In [18]:  s3

Out[18]:  set()

In [19]:  s2

Out[19]:  {1, 2, 3, 4, 5, 6, 7, 8, 9}

In [20]:  s2.remove(2)

In [21]:  s2

Out[21]:  {1, 3, 4, 5, 6, 7, 8, 9}

In [22]:  s2.discard(9)

In [23]:  s2

Out[23]:  {1, 3, 4, 5, 6, 7, 8}

In [25]:  s2.pop()

Out[25]:  1

In [26]:  s2

Out[26]:  {3, 4, 5, 6, 7, 8}

In [28]:  s2.remove(10)
          s2
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
Cell In[28], line 1
----> 1 s2.remove(10)
      2 s2

KeyError: 10
```

```
In [29]:  s2.discard(10)
          s2
```

```
Out[29]:  {3, 4, 5, 6, 7, 8}
```

SET OPERATION

#UNION

```
In [30]: a={1,2,3,4,5}
         b={4,5,6,7,8}
         c={8,9,10}
         a|b
```

Out[30]: {1, 2, 3, 4, 5, 6, 7, 8}

```
In [31]: a|c
```

Out[31]: {1, 2, 3, 4, 5, 8, 9, 10}

```
In [32]: a.union(b,c)
```

Out[32]: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

INTERSECTION

```
In [33]: a&b
```

Out[33]: {4, 5}

```
In [34]: a&b&c
```

Out[34]: set()

```
In [35]: b&c
```

Out[35]: {8}

```
In [36]: a.intersection(b,c)
```

Out[36]: set()

DIFFERENCE

```
In [37]: a.difference(b)
```

Out[37]: {1, 2, 3}

```
In [38]: b-c
```

Out[38]: {4, 5, 6, 7}

```
In [39]: c-a
```

Out[39]: {8, 9, 10}

In [ ]:

In [ ]:

In [ ]: