

```
In [1]: l1=[]  
l1
```

```
Out[1]: []
```

```
In [2]: l2=[10,20,30]  
l2
```

```
Out[2]: [10, 20, 30]
```

```
In [3]: print(type(l1))  
  
<class 'list'>
```

```
In [4]: l3=[20.7,5.4,6.3,70.6]  
l3
```

```
Out[4]: [20.7, 5.4, 6.3, 70.6]
```

```
In [5]: l4=['sai','ram']  
l4
```

```
Out[5]: ['sai', 'ram']
```

```
In [6]: l5=[10,'sai',[1,2,3],[150.3,4]]  
l5
```

```
Out[6]: [10, 'sai', [1, 2, 3], [150.3, 4]]
```

```
In [7]: l2[0]
```

```
Out[7]: 10
```

```
In [9]: l5
```

```
Out[9]: [10, 'sai', [1, 2, 3], [150.3, 4]]
```

```
In [10]: l5[2][0]
```

```
Out[10]: 1
```

```
In [12]: l4[-1]
```

```
Out[12]: 'ram'
```

```
In [14]: l6=['one','two','three','four','five']  
l6
```

```
Out[14]: ['one', 'two', 'three', 'four', 'five']
```

```
In [15]: l6[0:3]
```

```
Out[15]: ['one', 'two', 'three']
```

```
In [16]: l6[2:5]
```

```
Out[16]: ['three', 'four', 'five']
```

```
In [17]: 16[:3]
```

```
Out[17]: ['one', 'two', 'three']
```

```
In [18]: 16[:2]
```

```
Out[18]: ['one', 'two']
```

```
In [19]: 16[-1]
```

```
Out[19]: 'five'
```

```
In [20]: 16[-3:]
```

```
Out[20]: ['three', 'four', 'five']
```

```
In [21]: 16[-3:-1]
```

```
Out[21]: ['three', 'four']
```

```
In [22]: 16[:]
```

```
Out[22]: ['one', 'two', 'three', 'four', 'five']
```

```
In [23]: 16[::]
```

```
Out[23]: ['one', 'two', 'three', 'four', 'five']
```

```
In [24]: 16.append('six')
```

```
In [25]: 16
```

```
Out[25]: ['one', 'two', 'three', 'four', 'five', 'six']
```

```
In [26]: 16.insert(6, 'seven')  
16
```

```
Out[26]: ['one', 'two', 'three', 'four', 'five', 'six', 'seven']
```

```
In [27]: 16.insert(1, "ONE")  
16
```

```
Out[27]: ['one', 'ONE', 'two', 'three', 'four', 'five', 'six', 'seven']
```

```
In [28]: 16.remove('ONE')  
16
```

```
Out[28]: ['one', 'two', 'three', 'four', 'five', 'six', 'seven']
```

```
In [29]: 16.pop()
```

```
Out[29]: 'seven'
```

```
In [30]: l6.pop(4)
```

```
Out[30]: 'five'
```

```
In [31]: l6
```

```
Out[31]: ['one', 'two', 'three', 'four', 'six']
```

```
In [32]: del l6[4]
```

```
In [33]: l6
```

```
Out[33]: ['one', 'two', 'three', 'four']
```

```
In [34]: del l6[2]  
l6
```

```
Out[34]: ['one', 'two', 'four']
```

```
In [37]: l6.clear()  
l6
```

```
Out[37]: []
```

```
del l6 l6
```

```
In [38]: l6=['one','two','three']  
l6
```

```
Out[38]: ['one', 'two', 'three']
```

```
In [39]: l7=l6
```

```
In [40]: l7
```

```
Out[40]: ['one', 'two', 'three']
```

```
In [41]: id(l6),id(l7)
```

```
Out[41]: (2745277032704, 2745277032704)
```

```
In [42]: l8=l6.copy()
```

```
In [43]: l8
```

```
Out[43]: ['one', 'two', 'three']
```

```
In [45]: id(l6),id(l8)
```

```
Out[45]: (2745277032704, 2745279623936)
```

```
In [46]: l6[0]=1  
l6
```

```
Out[46]: [1, 'two', 'three']
```

```
In [47]: 17,18
```

```
Out[47]: ([1, 'two', 'three'], ['one', 'two', 'three'])
```

```
In [48]: 11
```

```
Out[48]: []
```

```
In [49]: 11=12+13
```

```
In [50]: 11
```

```
Out[50]: [10, 20, 30, 20.7, 5.4, 6.3, 70.6]
```

```
In [52]: 11.extend(12)  
11
```

```
Out[52]: [10, 20, 30, 20.7, 5.4, 6.3, 70.6, 10, 20, 30, 10, 20, 30]
```

```
In [53]: 10 in 11
```

```
Out[53]: True
```

```
In [54]: 'ten' in 11
```

```
Out[54]: False
```

```
In [55]: 12
```

```
Out[55]: [10, 20, 30]
```

```
In [56]: 11
```

```
Out[56]: [10, 20, 30, 20.7, 5.4, 6.3, 70.6, 10, 20, 30, 10, 20, 30]
```

```
In [57]: 13
```

```
Out[57]: [20.7, 5.4, 6.3, 70.6]
```

```
In [60]: 12.reverse()  
12
```

```
Out[60]: [30, 20, 10]
```

```
In [61]: 12=12[::-1]  
12
```

```
Out[61]: [10, 20, 30]
```

```
In [62]: 13.sort()  
13
```

```
Out[62]: [5.4, 6.3, 20.7, 70.6]
```

```
In [63]: l3.sort(reverse=True)
13
```

```
Out[63]: [70.6, 20.7, 6.3, 5.4]
```

```
In [64]: sorted(l3)
```

```
Out[64]: [5.4, 6.3, 20.7, 70.6]
```

```
In [65]: l3
```

```
Out[65]: [70.6, 20.7, 6.3, 5.4]
```

```
In [66]: for i in l3:
          print(i)
```

```
70.6
20.7
6.3
5.4
```

```
In [67]: for i in enumerate(l3):
          print(i)
```

```
(0, 70.6)
(1, 20.7)
(2, 6.3)
(3, 5.4)
```

```
In [68]: l2
```

```
Out[68]: [10, 20, 30]
```

```
In [69]: l1
```

```
Out[69]: [10, 20, 30, 20.7, 5.4, 6.3, 70.6, 10, 20, 30, 10, 20, 30]
```

```
In [70]: l1.count(10)
```

```
Out[70]: 3
```

```
In [72]: all(l1)
```

```
Out[72]: True
```

```
any(l1)
```

```
In [73]: any(l2)
```

```
Out[73]: True
```

```
In [ ]:
```