

```
In [14]: 1**10+100-(0.75%2)
```

```
Out[14]: 100.25
```

```
In [17]: 4+6*5
```

```
Out[17]: 34
```

```
In [18]: type(3+1.5+4)
```

```
Out[18]: float
```

```
In [22]: 100**0.5
```

```
Out[22]: 10.0
```

```
In [28]: s="hello"
```

```
In [30]: s[1]
```

```
Out[30]: 'e'
```

```
In [35]: s[::-1]
```

```
Out[35]: 'olleh'
```

```
In [36]: s[-1]
```

```
Out[36]: 'o'
```

```
In [37]: s[4]
```

```
Out[37]: 'o'
```

```
In [40]: 3*[0]
```

```
Out[40]: [0, 0, 0]
```

```
In [41]: list=[1,2,[3,4]]
```

```
In [46]: list.append("hello")
```

```
File "<ipython-input-46-ceb9ef80afba>", line 1
list.append([2]"hello")
            ^
SyntaxError: invalid syntax
```

```
In [43]: list
```

```
Out[43]: [1, 2, [3, 4], 'hello']
```

```
In [47]: list=[1,2,[3,4,"hello"]]
```

```
In [48]: list[2][2]="goodbye"
```

```
In [49]: list
```

```
Out[49]: [1, 2, [3, 4, 'goodbye']]
```

```
In [50]: list4=[5,6,7,81,13]
```

```
In [51]: list4.sort()
```

```
In [52]: list4
```

```
Out[52]: [5, 6, 7, 13, 81]
```

```
In [57]: d={'simple_key':'hello'}
```

```
In [60]: d['simple_key']
```

```
Out[60]: 'hello'
```

```
In [61]: d={'k1':{'k2':'hello'}}
```

```
In [62]: d['k1']['k2']
```

```
Out[62]: 'hello'
```

```
In [63]: d={'k1':[{'nest_key':['this is deep',['hello']]]]}
```

```
In [76]: d['k1'][0]['nest_key'][1][0]
```

```
Out[76]: 'hello'
```

```
In [77]: d={'k1':[1,2,{'k2':['this is tricky',{'tough':[1,2,['hello']]}]}]}
```

```
In [94]: d['k1'][2]['k2'][1]['tough'][2][0]
```

```
Out[94]: 'hello'
```

```
In [95]: list=[1,2,2,33,4,4,11,22,3,3,2]
```

```
In [97]: set(list)
```

```
Out[97]: {1, 2, 3, 4, 11, 22, 33}
```

```
In [98]: 2>3
```

```
Out[98]: False
```

```
In [99]: 3<=2
```

```
Out[99]: False
```

```
In [100... 3==2.0
```

```
Out[100... False
```

```
In [101... 3.0==3
```

```
Out[101... True
```

```
In [103... 2.0==2
```

```
Out[103... True
```

```
4**0.5
```

```
In [104... 4**0.5!=2
```

```
Out[104... False
```

```
In [2]: one=[1,2,[3,4]]  
two=[1,2,{'k1':4}]
```

```
In [112... one[2][0]
```

```
Out[112... 3
```

```
In [110... two[2]['k1']
```

```
Out[110... 4
```

```
In [ ]:
```