

In [1]: `((2**2)+7)*10/1-9.75`

Out[1]: 100.25

In [2]: `0`

Out[2]: 0

In [3]: `44`

Out[3]: 44

In [4]: `4 * (6 + 5)`

Out[4]: 44

In [5]: `29`

Out[5]: 29

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

Out[6]: 29

In [7]: `34`

Out[7]: 34

In [8]: `4 + 6 * 5`

Out[8]: 34

In [9]: `3 + 1.5 + 4`

Out[9]: 8.5

In [10]: `4**2`

Out[10]: 16

In [11]: `4**0.5`

Out[11]: 2.0

In [12]: `s='hello'`

In [13]: s[5]

```
-----  
IndexError                                Traceback (most recent call last)  
<ipython-input-13-b70192e38e48> in <module>()  
----> 1 s[5]
```

**IndexError:** string index out of range

In [14]: s(5)

```
-----  
TypeError                                Traceback (most recent call last)  
<ipython-input-14-22405407005c> in <module>()  
----> 1 s(5)
```

**TypeError:** 'str' object is not callable

In [15]: s

Out[15]: 'hello'

In [16]: s[0]

Out[16]: 'h'

In [17]: s.[4]

```
File "<ipython-input-17-413d79b3806c>", line 1  
    s.[4]  
      ^
```

**SyntaxError:** invalid syntax

In [18]: s[4]

Out[18]: 'o'

In [19]: s[1]

Out[19]: 'e'

In [21]: s[::-1]

Out[21]: 'olleh'

s[4]

In [22]: s[4]

Out[22]: 'o'

In [23]: `s[0:4]`

Out[23]: `'hell'`

In [24]: `s[4:5]`

Out[24]: `'o'`

In [25]: `s[-]`

```
File "<ipython-input-25-ebf59d6069a9>", line 1
    s[-]
      ^
SyntaxError: invalid syntax
```

In [26]: `s[-1]`

Out[26]: `'o'`

In [32]: `t=[0,0,0]`

In [33]: `l=[0]`

In [34]: `l.append(0)`

In [35]: `l.append(0)`

In [36]: `l`

Out[36]: `[0, 0, 0]`

In [37]: `t`

Out[37]: `[0, 0, 0]`

In [38]: `s= [1,2,[3,4,'hello']]`

In [39]: `s[2][2]="goodbye"`

In [40]: `s`

Out[40]: `[1, 2, [3, 4, 'goodbye']]`

In [41]: `l = [5,3,4,6,1]`

In [42]: `l.sort()`

In [43]: `l`

Out[43]: `[1, 3, 4, 5, 6]`

```
In [44]: d = {'simple_key':'hello'}
```

```
In [46]: d.values()
```

```
Out[46]: ['hello']
```

```
In [47]: d['simple_key']
```

```
Out[47]: 'hello'
```

```
In [48]: d = {'k1':{'k2':'hello'}}
```

```
In [50]: d['k1']['k2d = {'k1':{'nest_key':['this is deep',['hello']]]}']
```

```
Out[50]: 'hello'
```

```
In [51]: d = {'k1':[{'nest_key':['this is deep',['hello']]]}]
```

```
In [52]: d['k1']['nest_key']['this is deep']
```

```
-----  
TypeError                                Traceback (most recent call last)  
<ipython-input-52-25f11092057d> in <module>()  
----> 1 d['k1']['nest_key']['this is deep']
```

```
TypeError: list indices must be integers, not str
```

```
In [53]: d = {'k1':[{'nest_key':['this is deep',['hello']]]}]
```

```
In [54]: d['k1'][0]['nest_key'][1][0]
```

```
Out[54]: 'hello'
```

```
In [55]: d = {'k1':[1,2,{'k2':['this is tricky',{'tough':[1,2,['hello']]}]}]}
```

```
In [56]: d['k1'][2]['k2'][1]['tough'][2][0]
```

```
Out[56]: 'hello'
```