

In [6]:

```
7**4
```

Out[6]:

```
2401
```

In [8]:

```
planet = "Earth"
diameter = 12742
print("The diameter of {} is {} kilometers.".format(planet,diameter))
```

The diameter of Earth is 12742 kilometers.

In [9]:

```
s = 'Hi there Sam!'
s.split()
```

Out[9]:

```
['Hi', 'there', 'Sam!']
```

In [1]:

```
lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
lst[3][1][2][0]
```

Out[1]:

```
'hello'
```

In [3]:

```
d = {'k1':[1,2,3,{ 'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
d['k1'][3]['tricky'][3]['target'][3]
```

Out[3]:

```
'hello'
```

In [4]:

```
def domainGet(email):
    return email.split('@')[-1]
```

```
list(filter(lambda word: word[0]!='s',seq))
```

```
Out[10]: ['soup', 'salad']
```

```
In [14]: def caught_speeding(speed, is_birthday):
```

```
    if is_birthday:
        speeding = speed - 5
    else:
        speeding = speed

    if speeding > 80:
        return 'Big Ticket'
    elif speeding > 60:
        return 'Small Ticket'
    else:
        return 'No Ticket'
```

```
In [15]: caught_speeding(81,True)
```

```
Out[15]: 'Small Ticket'
```

```
In [16]: caught_speeding(81,False)
```

```
Out[16]: 'Big Ticket'
```

```
In [17]:
```

```
list(filter(lambda word: word[0]!='s',seq))
```

```
Out[10]: ['soup', 'salad']
```

```
In [14]: def caught_speeding(speed, is_birthday):
```

```
    if is_birthday:
        speeding = speed - 5
    else:
        speeding = speed
```

```
    if speeding > 80:
        return 'Big Ticket'
    elif speeding > 60:
        return 'Small Ticket'
    else:
        return 'No Ticket'
```

```
In [15]: caught_speeding(81,True)
```

```
Out[15]: 'Small Ticket'
```

```
In [16]: caught_speeding(81,False)
```

```
Out[16]: 'Big Ticket'
```