

In [12]:

```
# 列表按照元素长度排序

l = ['Shanghai', 'Beijing', 'Tokyo', 'Taipei']
l.sort()
print(l)

['Beijing', 'Shanghai', 'Taipei', 'Tokyo']
```

In [6]:

```
# 列表按照元素长度排序
# solution #1

l = ['Shanghai', 'Beijing', 'Tokyo', 'Taipei']

def str_len(s1):
    return len(s1)

l.sort(key = str_len)

print(l[::-1])

['Shanghai', 'Beijing', 'Taipei', 'Tokyo']
```

In [9]:

```
# 列表按照元素长度排序
# solution #2

l = ['Shanghai', 'Beijing', 'Tokyo', 'Taipei']
l.sort(key = lambda s: len(s))
print(l)

['Tokyo', 'Taipei', 'Beijing', 'Shanghai']
```

In [10]:

```
# 找到符合  $x*x + y*y == z*z$  的  $x\ y\ z$ 
# solution #1

n = 25

for x in range(1,n):
    for y in range(x,n):
        for z in range(y,n):
            if x*x + y*y == z*z:
                print(x,y,z)
```

```
3 4 5
5 12 13
6 8 10
8 15 17
9 12 15
12 16 20
```

In [2]:

```
# solution #2
```

```
n = 25
```

```
print([(x, y, z) for x in range(1, n) for y in range(x, n) for z in range(y, n)  
if x*x + y*y == z*z])
```

```
[(3, 4, 5), (5, 12, 13), (6, 8, 10), (8, 15, 17), (9, 12, 15), (12,  
16, 20)]
```

In []: