

# Python Talk 3



这个指引文档在 知识共享 署名-相同方式共享 3.0协议之条款下提供

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# 复习

- ▶ 如何创建一个元素tuple?
- ▶ tuple和list有什么区别?
- ▶ 如何合并dict?
- ▶ 如何通过'1234567890'得到'2468'?

- ▶ (1, )
- ▶ list可变
- ▶ update()
- ▶ [1: 8: 2]



# 循环和判断

## ▶ 循环 (PythonTalk3)

- ▶ `for`

- ▶ `while`

## ▶ 循环控制 (PythonTalk4)

- ▶ `break`

- ▶ `continue`

## ▶ 判断 (PythonTalk4)

- ▶ `if`

- ▶ `else`

- ▶ `elif`



# while

## ► 语法

```
while Expression :  
    Code  
    Code  
Code
```

## ► 对比C语言

```
while (Expression)  
{  
    Code;  
    Code;  
}  
Code;
```



## while 例子

- ▶ 求出3至35的奇数和

```
i = 3
s = 0
while i <= 35 :
    s += i
    i += 2
print(s)
```



## while 练习

► 计算以下数列的和

► 1, 3, 5, 7, 9, 11, ..., 95, 97, 99

► 1, 2, 4, 8, 16, ..., 256, 512, 1024

► 用while计算出这个字符串

► '1,3,5,7,9,11,13,15,17,19,21, '

► 提示: `str(1)` 的结果是 '1'; 用字符串加法



# for

## ► 语法

```
for i in Object :  
    Code  
    Code  
Code
```

## ► 对比C语言（差别很大）

```
for (int i = 0; i < N; i  
    += 1)  
{  
    Code;  
    Code;  
}  
Code;
```



## for例子

- ▶ 计算[3, 1, 4, 1, 5, 9, 2, 6, 5]的元素和

```
s = 0
for i in [3, 1, 4, 1, 5, 9, 2, 6, 5] :
    s += i
print(s)
```





## sum函数

### ▶ 语法

▶ `sum(ListOfNumbers)`

### ▶ 举例

▶ `sum([1, 3, 5])`

### ▶ 对比

```
s = 0
l = [1, 3, 5]
for i in l :
    s += i
print(s)
```



## range函数

### ► 尝试以下代码

► `for i in range(10): print(i)`

► `for i in range(3, 10): print(i)`

► `for i in range(3, 10, 2): print(i)`



## for 练习

► 计算以下等差数列的和

► 1, 2, 3, 4, 5, 6, 7, ... 1365, 1366

► 11, 13, 15, 17, 19, ... 95, 97, 99

► 用 **for** 计算并打印这个字符串

► '1,3,5,7,9,11,13,15,17,19,21, '



感谢参加此次活动

