

# Tuple ??

??

- ?????
- ?????
- ?????? List ?????
- ??????(List)?

```
a = (1, 2, 3)
b = ('red', 'green', 'blue')
```

????? index ??

```
t = (1, 2, 3 ,4 ,5)
print(t[0]) # 1
print(t[1]) # 2
print(t[2]) # 3
```

????????????????????????? Tuple?

```
def convert_seconds(seconds):
    hours = seconds // 3600
    minutes = (seconds - hours * 3600) // 60
    remaining_seconds = seconds - hours * 3600 - minutes * 60
    return hours, minutes, remaining_seconds

result = convert_seconds(5000)
type(result)

# Output: <class 'tuple'>
```

???Tuple ??????????????????

```
def convert_seconds(seconds):
    hours = seconds // 3600
    minutes = (seconds - hours * 3600) // 60
    remaining_seconds = seconds - hours * 3600 - minutes * 60
```

```
    return hours, minutes, remaining_seconds
result = convert_seconds(5000)
hours, minutes, seconds = result
print(hours, minutes, seconds)
```

# Output: 1 23 20

??Tuples ???????? List(??)  
??  
Tuple(??)?? Tuple(??)  
?? Tuple ??????????????????  
unpacking??

??????? List ? Tuple

```
def full_emails(people):
    result = []
    for email, name in people:
        result.append("{} <{}>".format(name, email))
    return result
print(full_emails([("alex@example.com", "Alex Diego"), ("shay@example.com", "Shay Brandt")]))
```

# Output: ['Alex Diego <alex@example.com>', 'Shay Brandt <shay@example.com>']