https://dfedorov.spb.ru

Кортежи (tuple)

```
>>> ()
>>> (4)
>>> (4, )
>>> b = ('1', 2, '4')
>>> len(b)
>>> t = tuple(range(10))
>>> t + b
```

Пустой кортеж

Кортеж, состоящий из одного элемента

```
>>> (x, y) = (10, 5)
>>> x, y = 10, 5
>>> x, y = y, x
>>> t = (1, [1, 2], 3)
>>> t[1][0] = 4
```

Применимы операции над списками, кроме изменения

Подробнее

```
>>> a = ((220, 284), (1184, 1210))
>>> a[1]
(1184, 1210)
>>> a[1][1]
1210
>>>


>>> (a, (b, (c, d))) = (4, (3, (2, 1)))
>>> a
4
>>> b
3
>>>
```

```
>>> tuple([1, 2, 3])
(1, 2, 3)
>>> tuple("hello")
('h', 'e', 'l', 'l', 'o')
>>>
```

```
>>> "Home:Work".partition(":")
('Home', ':', 'Work')
>>> a, _, c = "Home:Work".partition(":")
>>> c
'Work'
```

```
>>> def minmax(items):
...     return min(items), max(items)
...
>>> minmax([34, 56, 32, 3, 32, 33])
(3, 56)
>>> lower, upper = minmax([34, 56, 32, 3, 32, 33])
>>> lower
3
>>>
```

```python
animals = ["cat", "dog", "bird"]
for index, value in enumerate(animals):
    print(index, value)
```

```
>>> seq1 = ['1', '2']
>>> seq2 = ['3', '4']
>>> zipped = zip(seq1, seq2)
>>> list(zipped)
```

[('1', '3'), ('2', '4')]

```
>>> seq1 = ['foo', 'bar', 'baz']
>>> seq2 = ['one', 'two', 'three']
>>> zipped = zip(seq1, seq2)
>>> list(zipped)

[('foo', 'one'), ('bar', 'two'), ('baz', 'three')]
```