1. What is the output of the following tuple operation

aTuple = (100, 200, 300, 400, 500)

aTuple.pop(2)

**print**(aTuple)

AttributeError

2. Select which is true for Python tuple

 A tuple maintains the order of items

 A tuple is unordered

 We cannot change the tuple once created

 We can change the tuple once created

3. A Python tuple can also be created without using parentheses

 False

 True

4. What is the output of the following

aTuple = "Yellow", 20, "Red"

a, b, c = aTuple

**print**(a)

 (‘Yellow’, 20, ‘Red’)

 TyepeError

 Yellow

5. What is the output of the following tuple operation

aTuple = (100,)

**print**(aTuple \* 2)

 TypeError

 (100, 100)

 (200)

6. Choose the correct way to access value **20** from the following tuple

aTuple = ("Orange", [10, 20, 30], (5, 15, 25))

 aTuple[1:2][1]

 aTuple[1:2](1)

 aTuple[1:2][1]

 aTuple[1][1]

7. What is the output of the following code

aTuple = (100, 200, 300, 400, 500)

aTuple[1] = 800

**print**(aTuple)

 TypeError

 (100, 800, 200, 300, 400, 500)

 (800, 100, 200, 300, 400, 500)

8. Select true statements regarding the Python tuple

 We can remove the item from tuple but we cannot update items of the tuple

 We cannot delete the tuple

 We cannot remove the items from the tuple

 We cannot update items of the tuple.

9. What is the output of the following

aTuple = (10, 20, 30, 40, 50, 60, 70, 80)

**print**(aTuple[2:5], aTuple[:4], aTuple[3:])

 (30, 40, 50) (10, 20, 30, 40) (40, 50, 60, 70, 80)

 (20, 30, 40, 50) (10, 20, 30, 40) (30, 40, 50, 60, 70, 80)

10. What is the type of the following variable

aTuple = ("Orange")

**print**(**type**(aTuple))

 list

 tuple

 array

 str

11. What is the output of the following

tuple1 = (1120, 'a')

**print**(**max**(tuple1))

 TypeError

 1120

 ‘a’

12. What is the output of the following code

aTuple = (100, 200, 300, 400, 500)

**print**(aTuple[-2])

**print**(aTuple[-4:-1])

 IndexError: tuple index out of range

 400  
(200, 300, 400)

**Exercise 1: Reverse the tuple**

**Given**:

tuple1 = (10, 20, 30, 40, 50)

**Expected output:**

(50, 40, 30, 20, 10)

tuple1 = (10, 20, 30, 40, 50)  
tuple1 = tuple1[::-1]  
print(tuple1)

### Exercise 2: Access value 20 from the tuple

The given tuple is a nested tuple. write a Python program to print the value 20.

**Given**:

tuple1 = ("Orange", [10, 20, 30], (5, 15, 25))

**Expected output:**

20

tuple1 = ("Orange", [10, 20, 30], (5, 15, 25))  
  
*# understand indexing  
# tuple1[0] = 'Orange'  
# tuple1[1] = [10, 20, 30]  
# list1[1][1] = 20*print(tuple1[1][1])

### Exercise 3: Create a tuple with single item 50

tuple1= (50, )  
print(tuple1)

### Exercise 4: Unpack the tuple into 4 variables

Write a program to unpack the following tuple into four [variables](https://pynative.com/python-variables/) and display each variable.

**Given**:

tuple1 = (10, 20, 30, 40)

**Expected output:**

tuple1 = (10, 20, 30, 40)

# Your code

print(a) # should print 10

print(b) # should print 20

print(c) # should print 30

print(d) # should print 40

tuple1 = (10, 20, 30, 40)  
  
*# unpack tuple into 4 variables*a, b, c, d = tuple1  
print(a)  
print(b)  
print(c)  
print(d)

### Exercise 5: Swap two tuples in Python

**Given**:

tuple1 = (11, 22)

tuple2 = (99, 88)

**Expected output:**

tuple1: (99, 88)

tuple2: (11, 22)

tuple1 = (11, 22)  
tuple2 = (99, 88)  
tuple1, tuple2 = tuple2, tuple1  
print(tuple2)  
print(tuple1)

### Exercise 6: Copy specific elements from one tuple to a new tuple

Write a program to copy elements 44 and 55 from the following tuple into a new tuple.

**Given**:

tuple1 = (11, 22, 33, 44, 55, 66)

**Expected output:**

tuple2: (44, 55)

tuple1 = (11, 22, 33, 44, 55, 66)  
tuple2 = tuple1[3:-1]  
print(tuple2)

### Exercise 7: Modify the tuple

Given is a nested tuple. Write a program to modify the first item (22) of a [list](https://pynative.com/python-lists/) inside a following tuple to 222

**Given**:

tuple1 = (11, [22, 33], 44, 55)

**Expected output:**

tuple1: (11, [222, 33], 44, 55)

tuple1 = (11, [22, 33], 44, 55)  
tuple1[1][0] = 222  
print(tuple1)

### Exercise 8: Sort a tuple of tuples by 2nd item

**Given**:

tuple1 = (('a', 23),('b', 37),('c', 11), ('d',29))

**Expected output:**

(('c', 11), ('a', 23), ('d', 29), ('b', 37))

tuple1 = (('a', 23), ('b', 37), ('c', 11), ('d', 29))  
tuple1 = tuple(sorted(list(tuple1), key=lambda x: x[1]))  
print(tuple1)

### Exercise 9: Counts the number of occurrences of item 50 from a tuple

**Given**:

tuple1 = (50, 10, 60, 70, 50)

**Expected output:**

2

tuple1 = (50, 10, 60, 70, 50)  
print(tuple1.count(50))

### Exercise 10: Check if all items in the tuple are the same

tuple1 = (45, 45, 45, 45)

**Expected output:**

True

def check(t):  
 return all(i == t[0] for i in t)  
  
tuple1 = (45, 45, 45, 45)  
print(check(tuple1))