Class Exercise:

Tuple exercises

1. Reverse the tuple

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

Sample Output: (50, 40, 30, 20, 10)

2. Access value 20 from the tuple

Input:

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

Sample Output:

20

3. Unpack the tuple into 4 variables

Input:

tuple1 = (10, 20, 30, 40)

Sample Output:

10 20 30 40

4. Swap two tuples in Python

Input:

tuple1 = (11, 22)

tuple2 = (99, 88)

Sample Output:

tuple1: (99, 88)

tuple2: (11, 22)

5. Copy specific elements from one tuple to a new tuple

Input:

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

Sample Output:

tuple2: (44, 55)

6. 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

Input:

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

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

7. Sort a tuple of tuples by 2nd item

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

Sample Output:

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

8. Counts the number of occurrences of item 50 from a tuple

Input:

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

Sample Output:

2

9. Check if all items in the tuple are the same

Input:

tuple1 = (45, 45, 45, 45)

Sample Output:

True

10. Write a Python program to compute the element-wise sum of given tuples.

Input:

x = (1,2,3,4)

y = (3,5,2,1)

z = (2,2,3,1)

Sample Output:

Original lists:

(1, 2, 3, 4)

(3, 5, 2, 1)

(2, 2, 3, 1)

Element-wise sum of the said tuples:

(6, 9, 8, 6)