Exercise 1: Write a program that removes the first, third and fourth number from a list if they are there.

Example 1:
my_lst = [1,2,3,4,5,6]

Output:
The new list is: [2,5,6]

Example 2:
my_lst = [1,2,3]

Output:
The new list is: [2]

Exercise 2: Write a program that combines two tuples into one tuple.

Example 1:
tuple_1 = (1,2,3)
tuple_2 = (4,5,6)

Output:
The new tuple is: (1,2,3,4,5,6)

Example 2:
tuple_1 = (2,3,7,4)
tuple_2 = (7,1)

Output:
The new tuple is: (2,3,7,4,7,1)

Exercise 3.1: Write a program that takes a list and split it into two tuples of the same size.

Example 1:
my_lst = [6,2,7,4,3]

Output:
Tuple 1 is: (6,2,7)
Tuple 2 is: (4,3)

Example 2:
my_lst = [‘a’, ‘b’, ‘c’, 1, 2, 3, 4, ‘d’, 5, “hello”]

Output:
Tuple 1 is: (‘a’, ‘b’, ‘c’, 1, 2)
Tuple 2 is: (3, 4, ‘d’, 5, “hello”)

Exercise 3.2: Alternate the elements between the two tuples(tuple 1 has elements with index (0,2,4,6,8, etc.) tuple 2 has elements with index (1,3,5,7,9, etc.))

Example 1:
my_lst = [6,2,7,4,3]

Output:
Tuple 1 is: [6,7,3]
Tuple 2 is: [2,4]

Example 2:
my_lst = [‘a’, ‘b’, ‘c’, 1, 2, 3, 4, ‘d’, 5, “hello”]

Output:
Tuple 1 is: [‘a’, ‘c’, 2, 4, 5]
Tuple 2 is: [‘b’, 1, 3, ‘d’, “hello”]

Exercise 4: Write a program that has a list containing 5 tuples that each have 2 numbers. Sort the list in ascending order of the last number in each tuple.

Example 1:
my_lst = [(3,2), (3,1), (4,3), (3,4), (3,5)]

Output:
The ordered list is: [(3,1), (3,2), (4,3), (3,4), (3,5)]

Example 2:
my_lst = [(5,2), (6,1), (4,2), (3,4), (7,5)]

Output:
The ordered list is: [(6,1), (5,2), (4,2), (3,4), (7,5)]

Exercise 5.1: Write a program that calculates the average of a list containing 5 elements.

Example 1:
my_lst = [2, 2, 3, 3, 4]

Output:
The average is 2.8

Example 2:
my_lst = [7, 7, 2, 2, 3]

Output:
The average is 4.2

Exercise 5.2: Add a number to the list that turns the average into 5.

Example 1:
my_lst = [2, 2, 3, 3, 4]

Output:
The average was 2.8
Added 16, new list is [2, 2, 3, 3, 4, 16]
The average is now 5

Example 2:
my_lst = [7, 7, 2, 2, 3]

Output:
The average is 4.2
Added 9, new list is [7, 7, 2, 2, 3, 9]
The average is now 5

Exercise 6: A 2D list is a list that contains multiple lists. This is often used to depict coordinates (x and y). Here is a 2D list of size 4 by 4 that contains only the number 1.
[[1, 1, 1, 1],
[1 ,1 ,1 ,1],
[1 ,1 ,1 ,1],
[1 ,1 ,1 ,1]]

Create a 2D list of size 6 by 6 containing only 3's in 2 lines of code. Don't use for-loops and keep to the PEP 8. Print the list.

Example:
Output:
[[3, 3, 3, 3, 3, 3], [3, 3, 3, 3, 3, 3], [3, 3, 3, 3, 3, 3], [3, 3, 3, 3, 3, 3], [3, 3, 3, 3, 3, 3], [3, 3, 3, 3, 3, 3]]