

Question 1

Write a python program to get a list, sorted in increasing order by the last element in each tuple from given list of nonempty tuples.

Recommended time: 20 min

Sample:

```
[(2, 5), (1, 2), (4, 4)]
```

Result:

```
[(1, 2), (4, 4), (2, 5)]
```

Question 2

Slice list into 3 equal chunks and reverse each chunk

Recommended time: 15 min

Given:

```
sample_list = [11, 45, 8, 23, 14, 12, 78, 45, 89]
```

Expected Output:

```
Chunk1: [11, 45, 8]
```

After reversing it [8, 45, 11]

```
Chunk2: [23, 14, 12]
```

After reversing it [12, 14, 23]

```
Chunk3: [78, 45, 89]
```

After reversing it [89, 45, 78]

Question 3

Get all values from the dictionary and add them to a list but don't add duplicates.

Recommended time: 20 min

Given:

```
speed = {'jan': 47, 'feb': 52, 'march': 47, 'April': 44, 'May': 52, 'June': 53, 'july': 54, 'Aug': 44, 'Sept': 54}
```

Expected Outcome:

```
[47, 52, 44, 53, 54]
```

Question 4

Write a Python function that gets a tuple and returns a dictionary of items. Note: if the number of tuple items was odd, you won't consider the last item to create dictionary.

Recommended time: 15 min

Example:

```
(2, "Python", (3, 5), [2, "Python", (3, 5)], "Maktab")
```

Expected Output:

```
{2: "Python", (3, 5): [2, "Python", (3, 5)]}
```

Question 5

Write a Python function to return top three items in a shop. NOTE: function result type must be a dictionary.

Recommended time: 15 min

Sample data:

```
{'T-shirt': 45.50, 'Pants': 35, 'Sneakers': 41.30, 'Hat':  
55, 'Backpack': 24}
```

Expected Output:

```
{'Hat': 55, 'T-shirt': 45.5, 'Sneakers': 41.3}
```