Q1. Create a python program to sort the given list of tuples based on integer value using a lambda function.

[('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]

```
In [1]: l1=[('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]
```

```
In [9]: l1.sort(key=lambda x:x[1] )
```

```
In [7]: print(l1)

        [('Virat Kohli', 24936), ('Jack Kallis', 25534), ('Ricky Ponting', 27483), ('Sachin Tendulkar', 34357)]
```

Q2. Write a Python Program to find the squares of all the numbers in the given list of integers using lambda and map functions.

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

```
In [10]: list2=[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```
In [11]: list(map(lambda x: x**2,list2))
```

```
Out[11]: [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
```

Q3. Write a python program to convert the given list of integers into a tuple of strings. Use map and lambda functions

Given String: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Expected output: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')

```
In [12]: list3= [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```
In [13]: tuple(map(lambda x:str(x),list3))
```

```
Out[13]: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')
```

Q4. Write a python program using reduce function to compute the product of a list containing numbers from 1 to 25.

```
In [17]: list4=[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25]
```

```
In [18]: from functools import reduce
```

```
In [24]: reduce(lambda x,y: x*y ,list4)
```

```
Out[24]: 15511210043330985984000000
```

Q5. Write a python program to filter the numbers in a given list that are divisible by 2 and 3 using the filter function.

[2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

```
In [32]: list5=[2, 3, 6, 9, 27, 60, 90, 120, 55, 46]
```

```
In [43]: list(filter(lambda x :  x%2 ==0 and x%3==0 ,list5 ))
```

```
Out[43]: [6, 60, 90, 120]
```

Q6. Write a python program to find palindromes in the given list of strings using lambda and filter function.

['python', 'php', 'aba', 'radar', 'level']

```
In [44]: list6=['python', 'php', 'aba', 'radar', 'level']
```

```
In [48]: list(filter(lambda x: (x == "".join(reversed(x))), list6))
```

```
Out[48]: ['php', 'aba', 'radar', 'level']
```

```
In [ ]:
```