

**1-Write a Python program to count number of items in a dictionary value that is a list.**

**Sample Output**

```
Dict = { 'M1' : [67,79,90,73,36], 'M2' : [89,67,84], 'M3' : [82,57] }
```

Number of Items in a Dictionary : 10

**2-Write a Python program by function to print a dictionary line by line.**

**Sample Output**

```
Dict = { "Sam" : {"M1" : 89, "M2" : 56, "M3" : 89},  
        "Suresh" : {"M1" : 49, "M2" : 96, "M3" : 89} }
```

```
Sam  
M1 : 89  
M2 : 56  
M3 : 89  
Suresh  
M1 : 49  
M2 : 96  
M3 : 89
```

3-Let's use functions to calculate your trip's costs:

- Define a function called `hotel_cost` with one argument `nights` as input. The hotel costs \$140 per night. So, the function `hotel_cost` should return `140 * nights`.

- Define a function called `plane_ride_cost` that takes a string, `city`, as input. The function should return a different price depending on the location, similar to the code example above. Below are the valid destinations and their corresponding round-trip prices.

- "Charlotte": 183
- "Tampa": 220
- "Pittsburgh": 222
- "Los Angeles": 475

-Below your existing code, define a function called `rental_car_cost` with an argument called `days`. Calculate the cost of renting the car: Every day you rent the car costs \$40.(`cost=40*days`) if you rent the car for 7 or more days, you get \$50 off your total(`cost-=50`). Alternatively (`elif`), if you rent the car for 3 or more days, you get \$20 off your total. You cannot get both of the above discounts. Return that cost. -Then, define a function called `trip_cost` that takes two arguments, `city` and `days`. Like the example above, have your function return the sum of calling the `rental_car_cost(days)`, `hotel_cost(days)`, and `plane_ride_cost(city)` functions.

- Modify your `trip_cost` function definition. Add a third argument, `spending_money`. Modify what the `trip_cost` function does. Add the variable `spending_money` to the sum that it returns.

4-Follow the stpes:

- First, def a function called `cube` that takes an argument called `number`.
- Make that function return the cube of that number (i.e. that number multiplied by itself and multiplied by itself once again).
- Define a second function called `by_three` that takes an argument called `number`. if that number is divisible by 3, `by_three` should call `cube(number)` and return its result. Otherwise, `by_three` should return `False`. -Check if it works

## **5-Write a function to sort dictionary by values (Ascending/ Descending).**

### ***Sample Output***

Dictionary = { "m1" : 78 , "m2" : 89 , "m3" : 64 , "m4" : 35 , "m5" : 71 }

Ascending Order = [ ('m4', 35), ('m3', 64), ('m5', 71), ('m1', 78), ('m2', 89) ]

Descending Order = [ ('m2', 89), ('m1', 78), ('m5', 71), ('m3', 64), ('m4', 35) ]