# Dictionaries

1. Write a Python function to concatenate the three dictionaries to create a new one.

Sample Dictionary:

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

1. Write a Python function to check whether a given key already exists in a dictionary.

Sample Dictionary:

car = {"brand": "Ford","model": "Mustang","year": 1964}

Expected Result:

check(car, "hi") #False

check(car, "brand") #True

1. Write a Python function to iterate over dictionaries using for loops.

Sample Dictionary:

names = {"first": "ibrahim","second": "fatima","third": "roqia"}

Expected Result:

iterate(names)

# [('first', 'ibrahim'), ('second', 'fatima'), ('third', 'roqia')]

1. Write a Python function to generate and print a dictionary that contains a number

(between 1 and n) in the form (x, x\*x).

Sample Dictionary :

( n = 5)

Expected Output :

generate(5) #{1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

1. Write a Python function to sum all the items in a dictionary.

Sample Dictionary :

Numbers = {5:50,6:60, 7:70}

Expected Output :

sumdic({5:50,6:60, 7:70}) #180

1. Write a Python function to multiply all the items in a dictionary.

Sample Dictionary :

mult({5:50,6:60, 7:70})

Expected Output :

210000

1. Write a Python function to remove a key from a dictionary.

Sample Dictionary :

remove({5:50,6:60, 7:70}, 5)

Expected Output :

{6:60, 7:70}

1. Write a Python function to get the maximum and minimum value in a dictionary.

Sample Dictionary :

dict = {'ite m1': 1150, 'ite m2': 300, 'ite m3': 30, 'ite m4': 3050}

Expected Output :

('The maximum ', 3050, 'The minimum ', 30)

1. Write a Python function to combine two dictionary adding values for common keys.

d1 = {'a': 100, 'b': 200, 'c':300}

d2 = {'a': 300, 'b': 200, 'd':400}

Sample output: {'a': 400, 'b': 400, 'd': 400, 'c': 300}

1. Write a Python function to print all unique values in a dictionary.

Sample Data :

[{"V":"S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII":"S005"}, {"V":"S009"},{"VIII":"S007"}]

Expected Output :

('S005', 'S002', 'S007', 'S001', 'S009')

Or ['S001', 'S002', 'S005', 'S009', 'S007']

1. Write a Python function to create and display all combinations of letters, selecting each letter from a different key in a dictionary.

Sample data : {'1':['a','b'], '2':['c','d']}

Expected Output: [“ac”, “ad”, “bc”, “bd”]

1. Write a Python function to combine values in a python list of dictionaries.

Sample data: [{'item': 'item1', 'amount': 400}, {'item': 'item2', 'amount': 300}, {'item': 'item1', 'amount': 750}]

Expected Output:

{'item1': 1150, 'item2': 300}

1. Write a Python function to remove spaces from dictionary keys.

Sample Dictionary :

remove\_space({'ite m1': 1150, 'ite m2': 300})

Expected Output :

{'item1': 1150, 'item2': 300}

1. Write a Python function to match key values in two dictionaries.

Sample dictionary: {'key1': 1, 'key2': 3, 'key3': 2}, {'key1': 1, 'key2': 2}

Expected output: key1: 1 is present in both x and y

1. Write a Python function to filter even numbers from a given dictionary values.

Original Dictionary:

{'V': [1, 4, 6, 10], 'VI': [1, 4, 12], 'VII': [1, 3, 8]}

Filter even numbers from said dictionary values:

{'V': [4, 6, 10], 'VI': [4, 12], 'VII': [8]}

Original Dictionary:

{'V': [1, 3, 5], 'VI': [1, 5], 'VII': [2, 7, 9]}

Filter even numbers from said dictionary values:

{'V': [], 'VI': [], 'VII': [2]}

1. Write a Python function to get the total length of all values of a given dictionary with string values.

Original dictionary:

{'#FF0000': 'Red', '#800000': 'Maroon', '#FFFF00': 'Yellow', '#808000': 'Olive'}

Total length of all values of the said dictionary with string values:

20

1. Write a Python function to create a list of all the keys in a flat dictionary.

Original dictionary elements:

{'Theodore': 19, 'Roxanne': 20, 'Mathew': 21, 'Betty': 20}

Create a list of all the keys of the said flat dictionary:

['Theodore', 'Roxanne', 'Mathew', 'Betty']

1. Write a Python function to create a list of all the values in a flat dictionary.

Original dictionary elements:

{'Theodore': 19, 'Roxanne': 20, 'Mathew': 21, 'Betty': 20}

Create a flat list of all the values of the said flat dictionary:

[19, 20, 21, 20]

1. Write a Python function to find the key of the maximum value in a dictionary.

Original dictionary elements:

{'Theodore': 19, 'Roxanne': 22, 'Mathew': 21, 'Betty': 20}

Finds the key of the maximum and minimum value of the said dictionary:

['Roxanne', 'Theodore']

1. Write a Python function to convert a given dictionary to a list of tuples.

Original Dictionary:

{'Red': 1, 'Green': 3, 'White': 5, 'Black': 2, 'Pink': 4}

Convert the said dictionary to a list of tuples:

[('Red', 1), ('Green', 3), ('White', 5), ('Black', 2), ('Pink', 4)]

1. Write a Python function to combine two lists into a dictionary, where the elements of the

first one serve as the keys and the elements of the second one serve as the values. The values of the first list need to be unique and hashable.

Original lists:

['a', 'b', 'c', 'd', 'e', 'f']

[1, 2, 3, 4, 5]

Combine the values of the said two lists into a dictionary:

{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5}

1. Write a function that for a given dictionary (whose all values are integers) returns a dictionary in which all values are replaced by their rightmost digit (for example 29 is replaced by 9).

Sample Dictionary:

dictt = {"qw": 45, "en":1334, "fro": 774, "klo": 223}

Expected Result:

mostright(dictt) #{'qw': 5, 'en': 4, 'fro': 4, 'klo': 3}

1. Write a function that for a given dictionary (whose all values are integers) returns a dictionary in which all values smaller than 14 are doubled.

Sample Dictionary:

dictt = {"for": 4, "hi": 14, "hallow": 13}

Expected Result:

dubled(dictt) #{'for': 8, 'hi': 14, 'hallow': 26}

1. Write a function that for a given dictionary (whose all values are integers) returns a dictionary in which all values smaller than 9 are doubled.

Sample Dictionary:

dictt = {"for": 4, "hi": 14, "hallow": 13}

Expected Result:

dubled(dictt) #{'for': 8, 'hi': 14, 'hallow': 13}