# Assignment 11: Exploring Sets

# You will pick yourself and one other family member.

# You identify 10 favorite words (sets) for each

# You will then compute the union, intersection, difference,

# and symmetric\_difference between these sets.

# You print out results.

# TODO: You need to implement these four methods

# union method

def set\_union(x,y):

return x.union(y)

# intersection method

def set\_intersection(x,y):

return x.intersection(y)

#return x & y

# difference method

def set\_difference(x,y):

return x-y

# symmetric\_difference method

def set\_symmetric\_difference(x,y):

return x.symmetric\_difference(y)

# we will setup the test cases here

# TODO: fill in the sets with 10 words in each set

my\_words = {'car','mansion','airplane','television','videogame','play','fun',

'phone','brother','mother'}

mom\_words = {'math','puzzle','kids','mansion','vision','television','goal',

'meditation','respect','teacher'}

#Now call the methods and print the results

our\_union = set\_union(my\_words, mom\_words)

our\_intersection = set\_intersection(my\_words, mom\_words)

me\_mom\_difference = set\_difference(my\_words, mom\_words)

mom\_me\_difference = set\_difference(mom\_words,my\_words)

our\_symmetric\_difference = set\_symmetric\_difference(my\_words,mom\_words)

# Now print the output/results

print("UNION: List of words that exists in my set or my mom's set")

print(\*our\_union)

print("INTERSECTION: List of words that exists both sets")

print(\*our\_intersection)

print("DIFFERENCE 1: List of words that are exclusive to me")

print(\*me\_mom\_difference)

print("DIFFERENCE 2: List of words that are exclusive to my mom")

print(\*mom\_me\_difference)

print("SYMMETRIC DIFFERENCE: List of words that do not have any overlap")

print(\*our\_symmetric\_difference)