#Q10 - Set Manipulation Algorithm by Union-Find (Find Function, Union Function, Path Compression (Modications to Find()):)

#Find Function

def find(i):

if parent[i] == i:

return i

else:

return find(parent[i])

#Union Function

def union(parent, rank, i, j):

irep = find(parent, i)

jrep = find(parent, j)

parent[irep] = jrep

#Path Compression (Modifications to Find())

def find(i):

if Parent[i] == i:

return i

else:

result = find(Parent[i])

Parent[i] = result

return result