from sys import maxsize

from itertools import permutations

v=4

def travellingSalesmanProblem(graph,s):

vertex =[]

for i in range (v):

if i!=s:

vertex.append(i)

min\_path =maxsize

next\_permutation=permutations(vertex)

for i in next\_permutation:

current\_pathweight=0

k=s

for j in i:

current\_pathweight+=graph[k][j]

k=j

current\_pathweight+=graph[k][s]

min\_path=min(min\_path,current\_pathweight)

return min\_path

if \_name=="main\_":

graph=[[0,10,15,20],[10,0,35,25],[15,35,0,30],[20,25,30,0]]

s=0

print(travellingSalesmanProblem(graph,s)