Find how many blocks can robot walk through

class Solution(object):

def movingCount(self, k, m, n):

"""

:type threshold: int

:type rows: int

:type cols: int

:rtype: int

"""

def inigraph(m,n):

return [[0 for i in range(n)] for i in range(m)]

def inbound(m,n,x,y):

return 0<=x<m and 0<=y<n

def checkbound(x,y,k):

x,y,cx,cy =str(x),str(y),0,0

for ele in x:

cx+=int(ele)

for ele in y:

cy+=int(ele)

if cx+cy>k:

return False

return True

def dfs(grid,m,n,x,y,k,count):

#print x,y,k

if inbound(m,n,x,y) and not grid[x][y]:

if not checkbound(x,y,k):

grid[x][y]=2

return

grid[x][y]=1

count[0]+=1

for dx,dy in dic:

x+=dx

y+=dy

dfs(grid,m,n,x,y,k,count)

x=y=0

count = [0]

grid = inigraph(m,n)

dic = [(0,1),(1,0),(0,-1),(-1,0)]

dfs(grid,m,n,x,y,k,count)

return count[0]

link: https://www.acwing.com/problem/content/22/