#task-01

def shiftLeft( source, k):

for i in range(0,k):

for i in range(0,len(source)):

if i == len(source)-1:

source[i] = 0

else:

source[i] = source[i+1]

print(source)

source=[10,20,30,40,50,60]

shiftLeft(source,3)

#task-02

def rotateLeft(source, k):

for i in range(0,k):

var = source[0]

for i in range(0,len(source)):

if i == len(source)-1:

source[i] = var

else:

source[i] = source[i+1]

print(source)

source=[10,20,30,40,50,60]

rotateLeft(source,3)

#task-03

def shiftRight(source, k):

for i in range(0,k):

for i in range(len(source)-1,-1,-1):

if i == 0:

source[i] = 0

else:

source[i] = source[i-1]

print(source)

source=[10,20,30,40,50,60]

shiftRight(source,3)

#task-04

def rotateRight(source, k):

for i in range(0,k):

var = source[len(source)-1]

for i in range(len(source)-1,-1,-1):

if i == 0:

source[i] = var

else:

source[i] = source[i-1]

print(source)

source=[10,20,30,40,50,60]

rotateRight(source,3)

#task-05

def remove(source, size, idx):

for i in range(idx,size):

if i == size-1:

source[i] = 0

else:

source[i] = source[i+1]

print(source)

source=[10,20,30,40,50,0,0]

remove(source,5,2)

#task-06

def removeAll( source, size, element):

count = 0

for i in range(0,len(source)-1):

if source[i] == source[i+1]:

count+=1

for p in range(0,count):

for i in range(0,len(source)):

if source[i] == element:

for i in range(i,size):

if i != size-1:

source[i]= source[i+1]

else:

source[i] = 0

print(source)

source=[10,2,30,2,50,2,2,2,0,0]

removeAll(source,9,2)

#task-07

def beam(source):

temp = False

for i in range(0,len(source)-1):

sum1=0

sum2=0

for p in range(0,i+1):

sum1+=source[p]

for q in range(i+1,len(source)):

sum2+=source[q]

if sum1 == sum2:

temp = True

print(temp)

source=[2, 1, 1, 2, 1]

beam(source)

#task 8

def array(num):

ary = [0]\*(num\*num)

first\_idx = 0

last\_idx = len(ary)-1

for i in range(1,num+1):

for j in range(last\_idx, first\_idx-1, -num):

ary[j] = i

first\_idx += num

last\_idx -= 1

return ary

print(array(3))

#task-09

def maxbranchcount(source):

max\_value=0

for i in range(0,len(source)):

count = 0

for p in range(0, len(source)):

if source[i] == source[p]:

count+=1

if count > max\_value:

max\_value = count

return max\_value

source=[1, 2, 2, 3, 4, 4, 4]

print(maxbranchcount(source))

#task-10

def repetition(source):

max\_num=0

for i in source:

if i > max\_num:

max\_num = i

ary = [0]\*(max\_num+1)

for i in range(0,len(ary)):

count = 0

for p in range(0,len(source)):

if i == source[p]:

count+=1

ary[i] = count

var=False

for i in range(0,len(ary)):

rep = 0

for p in range(i+1,len(ary)):

if ary[p] > 1 and ary[i] == ary[p]:

rep+=1

if rep > 0:

var=True

break

return var

source = [4,5,6,6,4,3,6,4]

print(repetition(source))