***Armstrong numbers***

l = int(input("Enter lower range "))

u = int(input("Enter upper range "))

for n in range(l,u + 1):

sum = 0

temp = n

while temp > 0:

num = temp % 10

sum = sum + num \*\* 3

temp = temp // 10

if n == sum:

print(n)

***Pattern***

count = 0

p=1

n=9

for i in range(1,10):

while(count<9-i):

print(" ",end=" ")

count=count+1

while(p<=i-1):

print(p,end=" ")

p=p+1

while(p>0):

print(p,end=" ")

p=p-1

p=1

count=0

print("\n")

i=i+1

***Matrix addition using lists***

n = int(input("Enter limit of matrix: "))

a=[[n]\*n]\*n

b=[[n]\*n]\*n

result=[[n]\*n]\*n

for l in range(0,n):

for m in range(0,n):

a[l][m] = int(input("Enter elements of first matrix: "))

for l in range(0,n):

for m in range(0,n):

b[l][m] = int(input("Enter elements of second matrix: "))

for i in range(n):

for j in range(n):

result[i][j] = a[i][j] + b[i][j]

for r in result:

print(r)