1. Write a Python program to check if the given number is a Disarium Number?

A)

num=175

temp=num

power=int(len(str(num)))

sum1=0

while(num!=0):

rem=num%10

sum1=sum1+rem\*\*power

power-=1

num=num//10

if sum1==temp:

print("Disarium number")

else:

print("not Disarium number ")

2. Write a Python program to print all disarium numbers between 1 to 100?

A)

for i in range(1,101):

num=i

temp=num

power=int(len(str(num)))

sum1=0

while(num!=0):

rem=num%10

sum1=sum1+rem\*\*power

power-=1

num=num//10

if sum1==temp:

print("Disarium number = ",sum1)

3. Write a Python program to check if the given number is Happy Number?

A)

def task3(num):

res = num;

def isHappy(num):

r = 0;

s = 0

while(num > 0):

r = num%10

s += r\*\*2

num //= 10

return s

while(res != 1 and res != 4):

res = isHappy(res)

if(res == 1):

return True

elif(res == 4):

return False

task3(100)

4. Write a Python program to print all happy numbers between 1 and 100?

A)

def task3(num):

res = num;

def isHappy(num):

r = 0;

s = 0

while(num > 0):

r = num%10

s += r\*\*2

num //= 10

return s

while(res != 1 and res != 4):

res = isHappy(res)

if(res == 1):

return True

elif(res == 4):

return False

for i in range(1, 101):

if task3(i) == True:

print(i, end = ' ')

5. Write a Python program to determine whether the given number is a Harshad Number?

A)

num=156

sum1=0

temp=num

while num!=0:

rem=num%10

sum1+=rem

num=num//10

if temp%sum1==0:

print("Harshad Number")

else:

print("Not Harshad Number")

6. Write a Python program to print all pronic numbers between 1 and 100?

A)

def isPronicNumber(num):

flag = False;

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

if((j\*(j+1)) == num):

flag = True

break

return flag

print("Pronic numbers between 1 and 100: ")

for i in range(1, 101):

if(isPronicNumber(i)):

print(i)

print(" ")