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

Ans.

def disarium():

e = int(input())

p = e

a = str(e)

x = 0

n = 0

b= []

for i in range(len(a)):

b.append(i+1)

while e>0:

for i in b[::-1] :

h = e % 10

x += h \*\*i

e //= 10

n = x

if p == n:

print("yes this is Disarium Number")

else:

print("this is not Disarium Number")

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

Ans.

def length(value):

length = 0

while(value != 0):

length = length + 1

value = value//10

return length

def sum(num):

h = 0

sum1= 0

len = length(num)

while(num > 0):

h = num%10

sum1 = sum1 + (h\*\*len)

num = num//10

len = len - 1

return sum1

a = 0

print("The disarium numbers between 1 and 100 are : ")

for i in range(1, 101):

a = sum(i)

if(a == i):

print(i)

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

Ans

def sum(num):

r = 0

sum1 = 0

while num > 0:

r = num%10

sum1 = sum1+(r\*r)

num = num//10

return sum1

num = 82

result = num

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

result = sum(result)

if(result == 1):

print(str(num) + " is a happy number")

elif(result == 4):

print(str(num) + " is not a happy number")

1. Write a Python program to print all happy numbers between 1 and 100?
2. Write a Python program to determine whether the given number is a Harshad Number?

Ans.

num = 154

n = num

t = 0

while num>0:

r = num%10

t = t + r

num = num//10

print(t)

if (n%t == 0):

print("yes this is harshad number")

else:

print("no this is not harshad number")

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

ans.

def pronic(num):

a = False

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

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

a = True

break

return a

for i in range(1,101):

if pronic(i):

print(i)