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

num = int(input("Enter numner : "))

ltemp = temp = num

length = 0

while(ltemp != 0):

length = length + 1

ltemp = ltemp // 10

while temp > 0 :

rem = 0

add = 0

while(temp > 0):

rem = temp % 10

add = add + (rem \*\* length)

temp = temp //10

length = length - 1

if num == add:

print("Disarium number")

else:

print("Not Disarium number")

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

def calculateLength(n):

length = 0

while(n != 0):

length = length + 1

n = n//10

return length

def sumOfDigits(num):

rem = 0

sum = 0

len = calculateLength(num);

while(num > 0):

rem = num%10

sum = sum + (rem\*\*len)

num = num//10

len = len - 1

return sum

result = 0

print("Disarium numbers between 1 and 100 are : ")

for i in range(1, 101):

result = sumOfDigits(i)

if(result == i):

print(i)

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

num = int(input("Enter number for check happy number : "))

temp = num

while temp >= 10:

add = 0

while temp > 0:

rem = temp % 10

add = add + (rem \*\* 2)

temp = temp // 10

temp = add

if temp == 1 or temp == 7:

print("Happy number")

else:

print("Not happy number.")

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

def digitsSquareAdd(Number):

add = rem = 0

while Number > 0:

rem = Number % 10

add = add + (rem \*\* 2)

Number = Number // 10

return add

for i in range(1, 101):

temp = i

while temp != 1 and temp != 4:

temp = digitsSquareSum(temp)

if temp == 1:

print(i, end = ' ')

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

num = int(input("Enter the number : "))

temp = num

add = rem = 0

while temp > 0:

rem = temp % 10

add = add + rem

temp = temp // 10

if num % add == 0:

print("Harshad number")

else:

print("Not Harshad number.")

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

num = int(input("Enter number : "))

flag = False

for i in range(0, num):

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

flag = True

break

if flag == True:

print("Pronic number.")

else:

print("Not Pronic number")