Python programming basic assignment:

Q1) import math

a = int(input("enter your number "))

b = int(len(str(a)))

c = 0

d = a

while d != 0:

e = d%10

c = int(c + math.pow(e, b))

b = b - 1

d = d//10

if c == a:

print("disarium number")

else:

print("not disarium number”)

Q2) import math

for a in range(1,101):

b = int(len(str(a)))

c = 0

d = a

while d != 0:

e = d%10

c = int(c + math.pow(e, b))

b = b - 1

d = d//10

if c == a:

print(a)

Q3) def happy\_number(z):

past = set()

while z != 1:

z = sum(int(i)\*\*2 for i in str(z))

if z in past:

return False

past.add(z)

return True

b = input("enter a number ")

if happy\_number(b) == True:

print("happy number")

if happy\_number(b) == False:

print("not happy number”)

Q4) def happy\_number(z):

past = set()

while z != 1:

z = sum(int(i)\*\*2 for i in str(z))

if z in past:

return False

past.add(z)

return True

for i in range(1,101):

if happy\_number(i) == True:

print(i)

Q5) def harshad\_number(a):

a = int(input("enter a number "))

b = 0

c = int(a)

while int(c) > 0:

b = b + int(c) % 10

c = int(c) // 10

return a % b == 0

if harshad\_number(a) == True:

print("Harshad number")

else:

print("not Harshad number”)

Q6) def harshad\_number(a):

b = 0

c = int(a)

while int(c) > 0:

b = b + int(c) % 10

c = int(c) // 10

return a % b == 0

for i in range(1,101):

if harshad\_number(i) == True:

print(i)