Numbers:

1.Perfect Number:

Sum of their 'factors' is Equal to the Given Number then it is called Perfect Number

Ex:

1)

Number=6

Factors=1,2,3

sum of factors is: 1+2+3==6

We have only 4 perfect Numbers <10,000 I e, 6,28,496 and 8128.

Code:

```
number = int(input())
def perfect_number(number):
   flag = 0
   for i in range(1, number):
      if number % i == 0:
         flag += i
   if flag == number:
      return str(number) + " is PerfectNumber"
   return str(number) + " is Not PerfectNumber"
print(perfect_number(number))
```

2.Strong Number:

Strong Number:

A Number is said to be Strong Number if the Sum of Individual factors is equal to Given Number

Ex:

Number:145

1! ---> 1

4! ---> 24

5! ---> 120

Sum --> 145

so here sum is equal to number so it is Strong number & it is also Called Krishna Murthy Number

Code:

```
Number=int(input())
N = str(Number)
sum = 0
for i in N:
   fact = 1
   for j in range(1, int(i) + 1):
      fact *= j
   sum += fact
   # print(fact, end=" ")
print("Strong Number ") if Number == sum else print("NOT A Strong Number ")
```

3.Spy Number:

A Number is said to be Spy Number product of the digits is equal to the sum of digits

Ex:

123

1+2+3==6==1*2*3

Code:

```
Num=int(input())
N=str(Num)
pro=1
sum=0
for i in N:
   pro*=int(i)
   sum+=int(i)
#print(sum,pro)
if pro==sum:
   print("Spy Number")
else:
   print("Not a Spy Number")
```

4.Neon Number:

A Neon number is said to be Neon Number if sum of the digits in a square of a given Number is equal to Given Number

Ex:

9

9 ---> 81

8+1 ---> 9

So 9 is Neon Number

Code:

```
number = int(input())

Square = number ** 2

sum = 0

for i in str(Square):

   sum += int(i)

if sum == number:

   print("Neon Number")

else:

   print("Not a Neon Number")
```

5 Arthomorphic Number:

A Number is said to be arthomorphic number if last digit of its Square Number is Equal to Given Number

Ex:

1)5 ---> 25

5 --->5

2)6 ---> 36

6 --->6

Code:

```
Number = int(input())

Sqaure = Number ** 2

Ans = str(Sqaure)

print("arthomorphic Number ") if Ans[-1] == str(Number) else print("NOT a arthomorphic ")
```