

1) WAP that calculates the sum of digits of a number.

```
num=int(input("Enter a number. "))
s=0
while num!=0:
    r=num%10
    s=s+r
    num=num//10 # "/" is integer division, that is it gives integer
value by removing decimals.
print("The sum of digits is",s)
```

2) WAP to generate the Fibonacci series up to a given number of terms.

```
num=int(input("Enter the number of iterations"))
a=0
b=1
c=0
print("The Fibonacci series is:",end="")
print(a,"",end="")
for i in range(0,num):
    c=b
    b=a+b
    a=c
    print(b,"",end="")
```

3) WAP to check if a number is a perfect number.

(Perfect numbers are equal to the sum of all of their factors except the numbers themselves.)

```
num=int(input("Enter a number. "))
s=0
for i in range(1,num):
    if num%i==0:
        s=s+i
if s==num:
    print(num,"is a perfect number")
else:
    print(num,"is not a perfect number")
```

4) WAP to check if a given number is palindrome or not.

```
num=int(input("Enter a number"))
a=0
b=num
c=0
while num!=0:
    c=num%10
    num=num//10
    a=(a*10)+c
```

```
if a==b:
    print(b,"is palindrome.")
else:
    print(b,"is not palindrome")
```

*# 5) WAP to find the Greatest Common Divisor(GCD) of two numbers.
GCD of two numbers is the greatest number that can divide both of those numbers perfectly.*

```
a=int(input("Enter a number"))
b=int(input("Enter a number"))
g=0
d=0
gcd=0
#Checking for the greatest number to put in the range() function.
if a>b:
    g=a
else:
    g=b
for i in range(1,g):
    if (a%i==0 and b%i==0 and i>d):
        gcd=i
print("The greatest common divisor between",a,"and",b,"is",gcd)
```