PYTHON

1. GCD

```
a = int(input("Enter first number: "))
Enter first number: 8
b = int(input ("Enter second number : "))
Enter second number : 5
for i in range(1, min(a,b)+1):
    if  a%i==0 and b%i==0: gcd=i
    print("gcd of", a, "&", b, "is", gcd)
```

gcd of 8 & 5 is 1

2. factorial

```
a = int(input("Enter a number: "))
Enter a number: 6
f=1
for i in range(1,a+1):
    f= f*i
    print("factorial of", a, "is", f)
```

factorial of 6 is 1

factorial of 6 is 2

factorial of 6 is 6

factorial of 6 is 24

factorial of 6 is 120

factorial of 6 is 720

3. Fibonacci series of N numbers

```
a = int(input("Enter number of terms: "))
Enter number of terms: 6
```

```python
n1, n2=0,1

n3= n1+n2

print("fibonacci series of first 6 terms")
```
fibonacci series of first 6 terms
```python
print(n1)
```
0
```python
print(n2)
```
1
```python
for i in range(3,a+1):

    print(n3)

    n1=n2

    n2=n3

    n3=n1+n2
```

1
2
3
5