1. write a python script to calculate sum of first N natural numbers.

```
N=int(input("enter the range"))
sum=0
for i in range(1,N+1):
    sum+=i
print("sum is",sum)
```

2. write a python script to calculate sum of squares of first N natural numbers.

```
N=int(input("enter the range"))
sum=0
for i in range(1,N+1):
    sum+=i**2
print("sum is",sum)
```

3. write a python script to calculate sum of cubes of first N natural numbers.

```
N=int(input("enter the range"))
sum=0
for i in range(1,N+1):
    sum+=i**3
print("sum is",sum)
```

4. write a python script to calculate sum of first N odd natural numbers.

```
N=int(input("enter the range"))
sum=0
for i in range(1,N+1):
    sum+=2*i-1
print("sum is",sum)
```

5. write a python script to calculate sum of first N even natural numbers.

```
N=int(input("enter the range"))
sum=0
for i in range(1,N+1):
    sum+=2*i
```

```
print("sum is",sum)
```

6. write a python script to calculate factorial of a number.

```
N=int(input("enter the number"))
fact=1
while N!=0:
    fact*=N
    N-=1
print("fact is",fact)
```

7. write a python script to count digits in a given number.

```
N=int(input("enter the number"))
count=0
while N>0:
    Y=N%10
    count+=1
    N=N//10
print("digits are",count)
```

8. write a python script to calculate sum of digits in a given number.

```
N=int(input("enter the number"))
sum=0
while N>0:
    rem=N%10
    sum+=rem
    N=N//10
print("sum is",sum)
```

9. write a python script to print the binary equivalent of a given decimal number. do not use bin() method.

```
decimal=int(input("enter the decimal number"))
binary=[]
count=0
while decimal>=0:
    binary.append(decimal%2)
    decimal=decimal//2
```

```
    if decimal==0:
        break
binary.reverse()
for i in binary:
    print(i,end='')
```

10. write a python script to print the octal equivalent of a given decimal number. do not use oct() method.

```
decimal=int(input("enter the decimal number"))
octal=[]
count=0
while decimal>=0:
    octal.append(decimal%8)
    decimal=decimal//8
    if decimal==0:
        break
octal.reverse()
for i in octal:
    print(i,end='')
```