Assignment - 11 loops

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

```python
sum=0
for x in range(int(input("enter the number "))):
    sum=sum+(x+1)
print(sum)
```

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

```python
sum=0
for x in range(int(input("enter the number "))):
    sum=sum+(x+1)**2
print(sum)
```

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

```python
sum=0
for x in range(int(input("enter the number "))):
    sum=sum+(x+1)**2
print(sum)
```

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

```python
sum=0
for x in range(1,int(input("enter the number "))):
    sum=sum+(2*x-1)
print(sum)
```

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

```python
sum=0
for x in range(int(input("enter the number "))):
    sum=sum+(2*(x+1))
print(sum)
```

6. Write a python script to calculate factorial of a given number.

```python
fact=1
for x in range(int(input("enter the number ")),0,-1):
    fact=fact*(x)
print(fact)
```

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

```python
n=int(input("enter the number "))
count=0
while n!=0:
```

```
    z=n%10
    count+=1
    n=n//10
print(count)
```

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

```
n=int(input("enter the number "))
count=0
a=0
while n!=0:
    z=n%10
    count=count+z
    n=n//10
print(count)
```

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

```
x=int(input("enter a no "))
bin="
while x!=0:
    r=x%2
    x=x//2
    bin=str(r)+bin
print(bin)
```

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

```
x=int(input("enter a no "))
bin="
while x!=0:
    r=x%8
    x=x//8
    bin=str(r)+bin
print(bin)
```