1. Print natural numbers in reverse using for loop and while loop (N-1)
2. Print natural numbers (1-N) using for loop and while loop
3. Print sum of natural numbers in 2 approaches
4. Print sum of given numbers in a range in 2 approaches
5. Check if the given year is leap year or not
6. Check whether the given number is prime or not in 3-4 approaches
7. Print sum of digits of a number

N=4567

o/p= 4+5+6+7=22

8)Write a program to reverse a number with and without converting into strings

9) Write a program to check given number is palindrome or not with and without converting into strings

1) Print natural numbers in reverse using for loop and while loop (N-1)

n=10

for i in range(n,0,-1):

print(i,end=" ")

n=5

while(n!=0):

print(n,end=" ")

n-=1

2)Print natural numbers (1-N) using for loop and while loop

n=10

for i in range(1,n+1):

print(i,end=" ")

n=10

i=1

while(i<=n):

print(i,end=" ")

i+=1

3)Print sum of natural numbers in 2 approaches

n=10

print((n\*(n+1))//2)

n=10

summ=0

for i in range(1,n+1):

summ+=i

print(summ)

4) Print sum of given numbers in a range in 2 approaches

a,b=5,18

summ=0

for i in range(a,b+1):

summ+=i

print(summ)

a,b=5,18

ans1=(b\*(b+1))/2

ans2=(a\*(a+1))/2

print(int(ans1-ans2)+a)

5)Check if the given year is leap year or not

year=1700

if (year%4==0 and year%100!=0) or (year%400==0):

print("Leap Year")

else:

print("Not a leap Year")

6) Check whether the given number is prime or not in 3-4 approaches

n=9

cnt=0

for i in range(1,n+1):

if n%i==0:

cnt+=1

if cnt>2:

print("not prime")

else:

print("prime")

n=91

cnt=0

for i in range(2,n//2+1):

if n%i==0:

cnt+=1

if cnt>0:

print("not prime")

else:

print("prime")

n=18

cnt=0

if n<=1:

print("not prime")

else:

for i in range(2,int(n\*\*0.5)+1):

if n%i==0:

cnt+=1

if cnt>0:

print("not prime")

else:

print("prime")

7) Print sum of digits of a number

n=4567

summ=0

while(n!=0):

rem=n%10

summ+=rem

n//=10

print(summ)

8) Write a program to reverse a number with and without converting into strings

n=123

print(int(str(n)[::-1]))

n=123

rev=0

while(n>0):

rem=n%10

rev=(rev\*10)+rem

n//=10

print(rev)

9) Write a program to check given number is palindrome or not with and without converting into strings

n=1220

if int(str(n)[::-1])==n:

print("palindrome")

else:

print("not palindrome")

n=1229221

temp=n

rev=0

while(temp>0):

rem=temp%10

rev=(rev\*10)+rem

temp//=10

if rev==n:

print("palindrome")

else:

print("not palindrome")