Assignment - 12 More on loops

1. Write a python script to reverse a number.

```
x=int(input("enter a no  "))
count=0
while x!=0:
    r=x%10
    count=count*10+r
    x=x//10
print(count)
```

2. Write a python script to check whether a given number is Prime or not.

```
n=int(input("enter a no  "))
for x in range(2,n):
    if n%x==0:
        break
if n==x+1:
    print("prime")
else:
    print("not prime")
```

3. Write a python script to print all Prime numbers under 100.

```
for x in range(1,101):
    count=0
    for j in range(1,x+1):
        if x%j==0:
            count=count+1
    if count==2:
        print(x)
```

4. Write a python script to print all Prime numbers between two given numbers (both values inclusive).

```
a=int(input("enter the number  "))
b=int(input("enter the number  "))
for x in range(a,b):
    count=0
    for j in range(1,x+1):
        if x%j==0:
            count=count+1
    if count==2:
        print(x)
```

5. Write a python script to find next prime number of a given number

```
n=int(input("enter a no  "))
z=n+1
while z:
    for x in range(2,z+1):
        if z%x==0:
            break
```

```
    if z==x:
        print("next prime no is",z)
        break
    else:
        z+=1
```

6. Write a python script to print first N prime numbers.

```
n=int(input("enter a no  "))
c=2
while n!=0:
    for x in range(2,c):
        if c%x==0:
            break
    else:
        print(c)
        n-=1
    c+=1
```

7. Write a python script to check whether a given pair of numbers are co-Prime numbers or not.

```
import math
x = int(input("enter the number  "))
y = int(input("enter the number  "))
z =math.gcd(x,y)
if z==1:
    print("co prime")
else:
    print("not co prime")
```

8. Write a python script to print first N terms of a Fibonacci series.

```
n=int(input("enter the number   "))
a,b=-1,1
while n!=0:
    c=a+b
    print(c)
    a=b
    b=c
    n-=1
```

9. Write a python script to calculate LCM of two numbers.

```
n1=int(input("enter the number   "))
n2=int(input("enter the number   "))
for x in range(1,n1*n2+1):
    if x%n1==0 and x%n2==0:
        break
print("lcm of %d and %d is %d"%(n1,n2,x))
```

by another way

```
import math
x = int(input("enter the number  "))
y = int(input("enter the number  "))
z =math.lcm(x,y)
if z%x==0 and z%y==0:
    print(z)
else:
    print()
```

10. Write a python script to calculate hcf of two numbers.

```
n1=int(input("enter the number   "))
n2=int(input("enter the number   "))
z=(n1 if n1<n2 else n2)
for x in range(z,0,-1):
    if n1%x==0 and n2%x==0:
        break
print("lcm of %d and %d is %d"%(n1,n2,x))
```