1.Write a program to accept a number and check if it is odd.

```
num = int (input ("Enter any number to test whether it is odd or not"))
if(num==0):
    print("Number must be positive or negative")
elif (num % 2) == 1:
    print("The number is odd ")
else:
    print("The provided number is not odd number")
```

#2.Write a program to accept a number and check if it is positive.

```
num = int (input ("Enter any number to test whether it is positive or not: "))
if(num==0):
    print("Number is Zero . Its not a Positive")
elif (num>0) :
    print("The number is Positive ")
else:
    print("The provided number is not positive number")
```

#3.Write a program to accept a number and check if it is negative

```
num = int (input ("Enter any number to test whether it is negative or not: "))
if(num==0):
    print("Number is Zero . Its not a Negative")
elif (num<0):
    print("The number is negative ")
else:
    print("The provided number is not negative number")
```

#4.Write a program to accept a number and check if it is prime.

```
num = int(input("Enter a number: "))
if(num==1 or num<=0):
    print("if input number is less than or equal to 1, it is not prime")
if num > 1:
   # check for factors
   for i in range(2,num):
       if (num % i) == 0:
           print(num,"is not a prime number")
           break
   else:
```

```
    print(num,"is a prime number")
```

#5. Write a program to accept 2 numbers A,B and check if A is divisible by B.

```
num1 = int(input("Enter a number: "))
num2 = int(input("Enter a number: "))
def divisible(m, n):
    if(num1%num2==0):
        return ("True, Numberis  Divisible by another number")
    else:
        return ("False, Number is not Divisible by another number")
print(divisible(num1, num2))
```

#6. Write a program to accept 2 numbers a A,B and calculate A ^ B(A to the powe B) .

```
base=int(input("Enter base value"))
exponent= int(input("Enter exponent value"))
result = 1
for exponent in range(exponent, 0, -1):
    result=result*base;
print("Answer = ")
print(result)
```

#7. Write a program to accept a number N and calculate N!

```
num = int(input("Enter a number: "))
factorial = 1
if num < 0:
   print(" Factorial does not exist for negative numbers")
elif num == 0:
   print("The factorial of 0 is 1")
else:
   for i in range(1,num+1 ):
       factorial = factorial*i
   print("The factorial of",num,"is",factorial)
```

#8. Write a program to accept a number N and print the first N natural numbers.

```
number = int(input("Please Enter any Number: "))
print("The List of Natural Numbers from 1 to "+str(number))
for i in range(1, number +1):
    print (i)
```

#9. Write a program to accept a number N and print the first N even numbers.

```
maximum= int(input(" Please Enter the Maximum Value : "))
for number in range(1, maximum+1):
    if(number % 2 == 0):
        print("{0}".format(number))
```

#10. Write a program to accept a number N and print the first N odd numbers.

```
maximum= int(input(" Please Enter the Maximum Value : "))
for number in range(1, maximum+1):
    if(number % 2 == 1):
        print("{0}".format(number))
```

#11. Write a program to accept a number N and print the first N terms of the Fibonacci series.

```
num = int(input("Please Enter any Number: "))
num1=0
num2=1
print(" The Fibonacci Series is", num1, num2, end=" ")
for i in range(2, num):
    num3 = num1 + num2
    num1 = num2
    num2 = num3
    print(num3)
```

#12. Write a program to accept a number and check if it is even.

```
num = int (input ("Enter any number to test whether it is even or not"))
if(num==0):
    print("Number must be positive or negative")
elif (num % 2) == 0:
    print("The number is even ")
else:
    print("The provided number is not even number")
```