```
b=list(input("Input a binary number:
  "))

v = 0
for i in range(len(b)):
    d = b.pop()
    if d == '1':
    v = v + 2**i

print("The decimal value of the number is", v)
```

Input a binary number: 11010
The decimal value of the number is 26



## Pattern.py



```
1 n=int(input("Enter number of rows:"))
2 for i in range(0, n):
3    for j in range(0, i+1):
4        print("* ",end="")
5    print("\r")
```

Enter number of rows:4

. .

\* \*

\* \* \*



## MultiplicationTable.py



```
1 k=int(input("Enter a number: "))
2 for i in range(1,11):
3    print(k,'x',i,'=',k*i)
```

## Enter a number: 8

```
8 \times 1 = 8
```

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$8 \times 10 = 80$$

```
1 s=0
2 print("Enter 10 numbers")
3 for i in range(1,11):
4    n=int(input("Enter number:"))
5    s+=n
6 print("The average of given 10 numbers
   is :",s/10)
7
```

```
Enter number:7
Enter number:8
Enter number:9
Enter number:34
Enter number:60
Enter number:12
Enter number:10
Enter number:50
The average of given 10 numbers is : 19.7
```

Enter 10 numbers



## Fibonacci.py



```
1 n= int(input("Number of terms: "))
2 \text{ n1}, \text{ n2} = 0, 1
3 C= 0
4 if n<= 0:
     print("Enter a positive integer")
6 elif n== 1:
     print("Fibonacci series:")
7
     print(n1)
8
9 else:
     print("Fibonacci series:")
10
     while c<n:
11
          print(n1)
12
          nth = n1 + n2
13
          n1 = n2
14
```

Number of terms: 5 Fibonacci series: 0 1 2 3

```
1 n1=int(input("Enter 1st number: "))
2 n2=int(input("Enter 2nd number: "))
3 i=1
4 while(i<=n1 and i<=n2):
5   if(n1%i==0 and n2%i==0):
6    gcd = i
7   i=i+1
8 print("GCD is", gcd)
9 if n1>n2:
10   smaller=n2
11 else:
12   smaller=n1
13 for i in range(1, smaller + 1):
14   if((n1%i==0) and (n2%i==0)):
```

Enter 1st number: 45 Enter 2nd number: 70 GCD is 5

HCF is 5

```
1 def Even Odd(l):
      e=0
2
      0=0
3
      for i in l:
4
           if i%2==0:
5
               e+=1
6
           else:
7
               0+=1
8
      print("number of even
9
  numbers :",e)
      print("number of odd numbers :",o)
10
11 n=int(input("Enter no of elements in
  series: "))
12 1=[1
```

```
Enter no of elements in series: 4
Enter a number:4
Enter a number:5
Enter a number:8
Enter a number:12
number of even numbers: 3
number of odd numbers: 1
```



```
1 s=input("Enter a word:")
2 l=list(s.split())
3 if len(l)>1:
4    print("Enter only a single word")
5 else:
6    print("Reverse of given word
is:",s[::-1])
```

Enter a word:dog Reverse of given word is: god