

1. To find if number is Even or Odd

```
In [2]: 1 num=int(input("Enter a number:"))
        2 if num%2==0:
        3     print("Number is even")
        4 else:
        5     print("Number is odd")
```

Enter a number:43
Number is odd

2. Find if number is Positive or Negative

```
In [3]: 1 num=int(input("Enter an integer:"))
        2 if num>0:
        3     print("Number is positive")
        4 elif num<0:
        5     print("Number is negative")
        6 else:
        7     print("Number is zero")
```

Enter an integer:23
Number is positive

3.Number is Prime or not

```
In [1]: 1 num=int(input("Enter a number:"))
        2 count=0
        3 for i in range(1,num+1):
        4     if(num%i==0):
        5         count +=1
        6 if (count==2):
        7     print("The given number is prime")
        8 else:
        9     print("The given number is not prime")
```

Enter a number:14
The given number is not prime

4.Print sum of 2 numbers

```
In [2]: 1 a=int(input("Enter a num:"))
        2 b=int(input("Enter a num:"))
        3 sum=a+b
        4 print(sum)
```

Enter a num:12

Enter a num:15

27

5.Sum of 2 numbers using functions

```
In [3]: 1 def sum(a,b):
        2     print("The sum of",num1,"and",num2,"is",a+b)
        3 num1=float(input("Enter the first number:"))
        4 num2=float(input("Enter the second number:"))
        5 sum(num1,num2)
```

Enter the first number:45

Enter the second number:63

The sum of 45.0 and 63.0 is 108.0

6.Print maximum of two numbers

```
In [4]: 1 num1=int(input("Enter the first number:"))
        2 num2=int(input("Enter the second number:"))
        3 result=max(num1,num2)
        4 print("Maximum number is:",result)
```

Enter the first number:86

Enter the second number:51

Maximum number is: 86

7.Minimum of two numbers

```
In [5]: 1 num1=int(input("Enter the first number:"))
        2 num2=int(input("Enter the second number:"))
        3 result=min(num1,num2)
        4 print("Minimum number is:",result)
```

Enter the first number:21

Enter the second number:73

Minimum number is: 21

8.Print fibonacci sequence

```
In [6]: 1 num=int(input("Enter a number:"))
2 term1=0
3 term2=1
4 print("The fibonacci sequence of length",num,"terms is:")
5 print(term1,term2)
6 for i in range(2,num):
7     curterm=term1+term2
8     print(curterm)
9     term1=term2
10    term2=curterm
```

Enter a number:10

The fibonacci sequence of length 10 terms is:

0 1
1
2
3
5
8
13
21
34

9.Print Factorial of a number

```
In [9]: 1 n=int(input("Enter a number:"))
2 f=1
3 if(n<0):
4     print("Not possible")
5 elif(n==0):
6     print("The factorial=1")
7 else:
8     for i in range(1,n+1):
9         f=f*i
10    print("Factorial is:",f)
```

Enter a number:4

Factorial is: 24

10.Display GCD of two numbers

```
In [10]: 1 def gcd(a,b):
          2     while b:
          3         a,b=b,a%b
          4     return a
          5 num1=int(input("Enter the first number:"))
          6 num2=int(input("Enter the second number:"))
          7 sol=gcd(num1,num2)
          8 print("The GCD of",num1,"and",num2,"is:",sol)
```

Enter the first number:10
Enter the second number:5
The GCD of 10 and 5 is: 5

11.Swap 2 numbers

```
In [12]: 1 val1=input("Enter the first number:")
          2 val2=input("Enter the second number:")
          3 print("First value=",val1,"and Second value=",val2)
          4 temp=val1
          5 val1=val2
          6 val2=temp
          7 print("Your values are swapped,First value=",val1,"and Second value=",val2)
```

Enter the first number:10
Enter the second number:11
First value= 10 and Second value= 11
Your values are swapped,First value= 11 and Second value= 10

12.Reverse strings

```
In [14]: 1 a=input("Enter something:")
          2 reverse=a[::-1]
          3 print("The reverse of",a.upper(),"is:",reverse.upper())
```

Enter something:ASSIGNMENT
The reverse of ASSIGNMENT is: TNEMNGISSA

13.Guessing game

```
In [16]: 1 import random
2 secNo=random.randint(1,10)
3 attempts=0
4 maxattempts=3
5 print("This is the guessing game.I am thinking of number between 1 and 10,
6 while attempts<maxattempts and attempts !=maxattempts:
7     guessed_num=int(input("Enter your guess:"))
8     if guessed_num==secNo:
9         print("Congrats you guessed the number!")
10        break
11    elif guessed_no < secNo:
12        attempts +=1
13    else:
14        attempts +=1
15        print("Try guessing lower number.")
16 if attempts==maxattempts:
17     print("All your attempts are over,the number was",secNo)
```

This is the guessing game.I am thinking of number between 1 and 10,guess the correct number in 3 attempts.Good luck!!

Enter your guess:3

Congrats you guessed the number!