1.Write a python program for even or odd.

In [24]:
```
number = int(input("Enter a number: "))

if number % 2 == 0:
    print(f"{number} is an even number.")
else:
    print(f"{number} is an odd number.")
```

```
Enter a number: 64
64 is an even number.
```

2.Write a python program for +ve and -ve number.

In [6]:
```
number = float(input("Enter a number: "))

if number > 0:
    print(f"{number} is a positive number.")
elif number < 0:
    print(f"{number} is a negative number.")
else:
    print("The number is zero.")
```

```
Enter a number: 89
89.0 is a positive number.
```

3.Write a python program for prime number.

In [8]:
```
number = int(input("Enter a number: "))

is_prime = number > 1 and all(number % i != 0 for i in range(2, int(number **

print(f"{number} is {'prime number' if is_prime else 'not prime'}.")
```

```
Enter a number: 13
13 is prime number.
```

4.Write a python program for pallindrome.

In [9]:
```
string = input("Enter a string: ")

is_palindrome = string.lower().replace(" ", "") == string.lower().replace(" ",

print(f"The string '{string}' is {'a palindrome' if is_palindrome else 'not a
```

```
Enter a string: Hello world
The string 'Hello world' is not a palindrome.
```

5.Write a python program for Sum of 2 number.

In [11]:
```
num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))

sum_result = num1 + num2

print(f"The sum of {num1} and {num2} is: {sum_result}")
```

```
Enter the first number: 10
Enter the second number: 20
The sum of 10 and 20 is: 30
```

6.Write a python program for Sum of 2 number using function.

In [13]:
```
calculate_sum = lambda x, y: x + y

num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))

result = calculate_sum(num1, num2)

print(f"The sum of {num1} and {num2} is: {result}")
```

```
Enter the first number: 10
Enter the second number: 20
The sum of 10 and 20 is: 30
```

7.Write a python program for maximum of two numbers.

In [16]:
```
def find_maximum(num1, num2):
    return max(num1, num2)

num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

maximum = find_maximum(num1, num2)

print(f"The maximum of {num1} and {num2} is: {maximum}")
```

```
Enter the first number: 10
Enter the second number: 20
The maximum of 10.0 and 20.0 is: 20.0
```

8.Write a python program for minimum of Two numbers.

In [17]:
```
def find_minimum(num1, num2):
    return min(num1, num2)

num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

minimum = find_minimum(num1, num2)

print(f"The minimum of {num1} and {num2} is: {minimum}")
```

```
Enter the first number: 10
Enter the second number: 20
The minimum of 10.0 and 20.0 is: 10.0
```

9.Write a python program for fibonacci series.

In [ ]:
```
num = int(input("Enter the Fibonacci sequnce length : "))

firstTerm = 0
secondTerm = 1
print("The Fibonacci series with", num, "terms is :")
for i in range(2,num):
    curTerm = firstTerm + secondTerm
    print(curTerm, end=" ")
    firstTerm = secondTerm
    secondTerm = curTerm
```

10.Write a python program for factorial of a number.

In [19]:
```
number = int(input("Enter a number: "))
factorial = 1 if number == 0 else 1
for i in range(1, number + 1):
    factorial *= i

print(f"The factorial of {number} is: {factorial}")
```

```
Enter a number: 10
The factorial of 10 is: 3628800
```

11.Write a python program for GDC of 2 number.

In [20]:
```
def gcd(a, b):
    while b:
        a, b = b, a % b
    return a

num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))

result = gcd(num1, num2)

print(f"The GCD of {num1} and {num2} is: {result}")
```

```
Enter the first number: 10
Enter the second number: 20
The GCD of 10 and 20 is: 10
```

12.Write a python program for swap of 2 number.

In [21]:
```
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

print(f"Before swapping: num1 = {num1}, num2 = {num2}")

num1, num2 = num2, num1

print(f"After swapping: num1 = {num1}, num2 = {num2}")
```

```
Enter the first number: 10
Enter the second number: 20
Before swapping: num1 = 10.0, num2 = 20.0
After swapping: num1 = 20.0, num2 = 10.0
```

13.Write a python program for reverse number

In [22]:
```
number_str = input("Enter a number: ")

reversed_number = number_str[::-1]

print(f"The reversed number is: {reversed_number}")
```

```
Enter a number: 10
The reversed number is: 01
```

14.Write a python program for Guess number using random.

In [23]:
```
import random

secret_number = random.randint(1, 100)

guess = 0
attempts = 0

while guess != secret_number:
    guess = int(input("Guess the number between 1 and 100: "))
    attempts += 1

    if guess < secret_number:
        print("Higher! Try again.")
    elif guess > secret_number:
        print("Lower! Try again.")
    else:
        print(f"Congratulations! You guessed the number {secret_number} correc
```

```
Guess the number between 1 and 100: 78
Lower! Try again.
Guess the number between 1 and 100: 5
Higher! Try again.
Guess the number between 1 and 100: 50
Lower! Try again.
Guess the number between 1 and 100: 39
Higher! Try again.
Guess the number between 1 and 100: 40
Higher! Try again.
Guess the number between 1 and 100: 45
Lower! Try again.
Guess the number between 1 and 100: 42
Higher! Try again.
Guess the number between 1 and 100: 44
Congratulations! You guessed the number 44 correctly in 8 attempts.
```

In [ ]: