```
#to find the index of an element in a list
my_list = [10, 20, 30, 40, 50]
print(my_list.index(30))
```

```
2
```

```
#Fibonacci series using recursion
def fibonacci(n):
    if n <= 1:
        return n
    return fibonacci(n - 1) + fibonacci(n - 2)
terms = 10
for i in range(terms):
    print(fibonacci(i), end=" ")
```

```
0 1 1 2 3 5 8 13 21 34
```

```
#to find the maximum of three numbers using functions
def find_max(a, b, c):
    return max(a, b, c)
print(find_max(15, 42, 23))
```

```
42
```

```
#maximum element in a list without using inbuilt methods
numbers = [4, 7, 1, 9, 2]
max_val = numbers[0]
for num in numbers:
    if num > max_val:
        max_val = num
print(max_val)
```

```
9
```

```
#sum of factorials of two numbers without using inbuilt methods
def get_factorial(n):
    res = 1
    for i in range(1, n + 1):
        res *= i
    return res
num1, num2 = 4, 5
print(get_factorial(num1) + get_factorial(num2))
```

```
144
```

```
# Function to check value and increase by 5 if less than 200
def check_and_increase(val):
    if val >= 200:
        print("You cannot increase")
    else:
        val += 5
```

```
        print(val)
check_and_increase(150)
```

```
155
```

```
# Program to check whether given string has "@gmail.com" at the end
def is_gmail(email):
    return email.endswith("@gmail.com")
print(is_gmail("testuser@gmail.com"))
```

```
True
```

```
# Program to create a Student class, object, and print attributes
class Student:
    def __init__(self, name, age, m1, m2, m3):
        self.name = name
        self.age = age
        self.marks1 = m1
        self.marks2 = m2
        self.marks3 = m3

obj = Student("Sree", 20, 80, 85, 90)
print(obj.name, obj.age, obj.marks1, obj.marks2, obj.marks3)
```

```
Sree 20 80 85 90
```

```
# Method inside the class that returns and prints the sum of marks
class Student:
    def __init__(self, m1, m2, m3):
        self.marks1, self.marks2, self.marks3 = m1, m2, m3
    def get_sum(self):
        return self.marks1 + self.marks2 + self.marks3
obj = Student(80, 85, 90)
print("Sum:", obj.get_sum())
```

```
Sum: 255
```

```
# Method inside the class that returns and prints the average of marks
class Student:
    def __init__(self, m1, m2, m3):
        self.marks1, self.marks2, self.marks3 = m1, m2, m3
    def get_avg(self):
        return (self.marks1 + self.marks2 + self.marks3) / 3
obj = Student(80, 85, 90)
print("Average:", obj.get_avg())
```

```
Average: 85.0
```