In [3]:

```
n = int(input("Enter size of the array: "))
arr = [0]

print("Enter elements:")
for _ in range(n):
    num = int(input())
    arr.append(num)

largest = arr[0]
for i in range(1,n):
    if arr[i] > largest:
        largest = arr[i]
print(largest)
```

```
Enter elements:
8
```

In [5]:

```
n = int(input("Enter the input:"))

a = 0
b = 1

print("Fib series")
if n>=1:
    print(a, end=" ")
if n>=2:
    print(b, end=" ")

for _ in range(2,n):
    c = a + b
    print (c, end=" ")
    a = b
    b = c
```

```
Fib series
0 1 1 2 3
```

In [6]:

```
n = int(input("Enter a number: "))

factorial = 1

if n < 0:
    print("Factorial is not defined for negative numbers")
else:
    for i in range(1, n + 1):
        factorial *= i
        print(f"{i}! = {factorial}")
```

```
1! = 1
2! = 2
3! = 6
4! = 24
5! = 120
```

In [7]:

```
import math

n = int(input("Enter a numnber: "))

factorial = 1

if n<0:
```

```
    print("Factorial not Exists")
else:
    result = math.factorial(n)
    print("Factorial of", n, "is:", result)
```

```
Factorial of 5 is: 120
```

In [19]:

```
n = int(input("Enter the input: "))

for i in range(n):
    for j in range(n - i -1):
        print(" ", end="")

    for k in range(2 * i + 1):
        print("*", end="")

    print()
```

```
    *
   ***
  *****
 *******
*********
```

In [18]:

```
n = int(input("Enter input: "))

for i in range(n):
    for j in range(i):
        print(" ", end="")

    for k in range(2 * (n - i) - 1):
        print("*", end="")

    print()
```

```
*********
 *******
  *****
   ***
    *
```

In [25]:

```
n = int(input("Enter number of elements in the array: "))
arr = []

print("Enter the elements:")
for _ in range(n):
    arr.append(int(input()))

freq = {}

for num in arr:
    if num in freq:
        freq[num] += 1
    else:
        freq[num] = 1

for key in freq:
    print(key, " ", freq[key])
```

```
Enter the elements:
1   2
2   1
```

In [27]:

```
n = int(input("Enter number of elements in the array: "))
```

```
arr = []

print("Enter the elements:")
for _ in range(n):
    arr.append(int(input()))

index = 1

for i in range(1,n):
    if arr[i] != arr[index - 1]:
        arr[index] = arr[i]
        index += 1

for i in range(index, n):
    arr[i] = "_"

print("Output: ", arr)
```

```
Enter the elements:
Output:  [1, 2, 3, '_', '_']
```

In [32]:

```
a = input("Enter 1 word")
b = input("Enter 2 word")
rev_a = a[::-1]

if rev_a == b:
    print("The word is a palindrome")
else:
    print("The word is not a palindrome")
```

```
The word is a palindrome
```

In [33]:

```
s = input("Enter a string: ")

freq = {}

for char in s:
    if char in freq:
        freq[char] += 1
    else:
        freq[char] = 1

max_freq = 0
most_freq_char = ''

for char in freq:
    if freq[char] > max_freq:
        max_freq = freq[char]
        most_freq_char = char


print("Most frequent character:", repr(most_freq_char))
```

```
Most frequent character: 'T'
```

In [35]:

```
# Recursive function to check palindrome
def is_palindrome(s, left, right):
    if left >= right:
        return True
    if s[left] != s[right]:
        return False
    return is_palindrome(s, left + 1, right - 1)

s = input("Enter a string: ")

# Call recursive function
```

```
if is_palindrome(s, 0, len(s) - 1):
    print("Yes")
else:
    print("No")
```

```
Yes
```