In [12]:
```python
# Question 1: Write a Python program that takes a number as input and print

# Taking a number as input from the user
number = int(input("Enter a number: "))

# Checking if the number is even or odd
if number % 2 == 0:
    print("Even")
else:
    print("Odd")
```

```
Enter a number: 6
Even
```

In [13]:
```python
# Question 2: Create a Python program that checks whether a person is eligi

# Taking the user's age as input
age = int(input("Enter your age: "))

# Checking if the user is eligible to vote
if age >= 18:
    print("You are eligible to vote.")
else:
    print("You are not eligible to vote.")
```

```
Enter your age: 15
You are not eligible to vote.
```

In [14]:
```python
# Question 3: Write a Python program that determines if a given year is a l

# Taking a year as input from the user
year = int(input("Enter a year: "))

# Checking if the year is a leap year
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print(f"{year} is a leap year.")
else:
    print(f"{year} is not a leap year.")
```

```
Enter a year: 2021
2021 is not a leap year.
```

In [16]:
```
# Question 4: Create a Python program that checks if a user-given number is

# Taking a number as input from the user
number = float(input("Enter a number: "))

# Checking if the number is positive, negative, or zero
if number > 0:
    print("The number is positive.")
elif number < 0:
    print("The number is negative.")
else:
    print("The number is zero.")
```

```
Enter a number: 6
The number is positive.
```

In [17]:
```
# Question 5: Write a Python program that determines the largest of three n

# Taking three numbers as input from the user
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))
num3 = float(input("Enter the third number: "))

# Determining the largest number
if num1 >= num2 and num1 >= num3:
    largest = num1
elif num2 >= num1 and num2 >= num3:
    largest = num2
else:
    largest = num3

# Displaying the largest number
print(f"The largest number is {largest}.")
```

```
Enter the first number: 6
Enter the second number: 2
Enter the third number: 8
The largest number is 8.0.
```

In [30]:
```
time = int(input("Enter the time in 24-hour format"))
if 5<= time <12:
    print("good morning")
```

```
Enter the time in 24-hour format8
good morning
```

In [3]:
```
def sum(a,b,c):
    return(a+b+c)
print(sum(10,20,30))
```

```
60
```

In [7]:
```
def factorial(n):
    result = 1
    for i in range(1,n+1):
        result *= i
    return result
number = int(input("Enter a number: "))
print(factorial(number))
```

```
Enter a number: 5
120
```

In [2]:
```
def power(base, exponent):
    if exponent == 0:
        return 1
    return base * power(base, exponent - 1)
print(power(2,8))
```

```
256
```

In [4]:
```
def sum(*a):
    sum=0
    for i in a:
        sum+=i
    print(sum)

sum(10,20,30,40)
```

```
100
```

In [ ]:
```

```

In [10]:
```
factorial = lambda x: 1 if x == 0 else x * factorial(x - 1)
print(factorial(5))
```

```
120
```

In [17]:
```
for i in range(1,100,-1):
    print(i)
```