Solution to Q1

In [6]:
```
def add_two_numbers (num1, num2):
    sum = num1 + num2
    return sum
print(add_two_numbers (4, 3))
print(add_two_numbers (10, 23))
```

```
7
33
```

Solution to Q2

In [12]:
```
def factorial(x):
    return(x**2)
factorial(4)
result = factorial(4)
print("The factorial is", result)
```

```
The factorial is 16
```

Solution to Q3

In [17]:
```
def find_even_numbers(n):
    evens = []
    for i in range(n+1):
        if i%2 == 0:
            evens.append(i)
    return evens
print(find_even_numbers(12))
print(find_even_numbers(8))
print(find_even_numbers(6))
```

```
[0, 2, 4, 6, 8, 10, 12]
[0, 2, 4, 6, 8]
[0, 2, 4, 6]
```

Solution to Q4

In [41]:
```
def calculate_mean(numbers):
    """
    Calculate the mean of a list of numbers.

    Parameters:
    numbers (list): A list of numeric values.

    Returns:
    float: The mean of the input numbers.
    """
```

```
    if not numbers:
        return None  # Return None for an empty list to avoid division by zero

    total = sum(numbers)
    mean = total / len(numbers)
    return mean

# Execute:
numbers_list = [1, 2, 3, 4, 5]
result_mean = calculate_mean(numbers_list)
print("Mean:", result_mean)
```

```
Mean: 3.0
```