In [1]:
```
n1=2
n2=5
print(int(n1+n2))
print(int(n1-n2))
print(int(n1*n2))
print(int(n1/n2))
print(int(n1%n2))
print(int(n1**n2))
```

```
7
-3
10
0
2
32
```

In [2]:
```
word = "wow"
first_letter = word[0]
last_letter = word[-1]
if first_letter == last_letter:
    print("string palindrome")
else:
    print("not string palindrome")
```

```
string palindrome
```

In [3]:
```
rows = int(input("Enter the number of rows: "))

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

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

    print()
```

```
Enter the number of rows: 4
   * 
  * * 
 * * * 
* * * * 
```

In [7]:
```
def fibonacci(n):
    fib_sequence = [0, 1]
    for i in range(2, n):
        fib_sequence.append(fib_sequence[i-1] + fib_sequence[i-2])
    return fib_sequence

# Change the number (100 in this case) to print a different number of Fibonacci numbers
n = 100

fibonacci_sequence = fibonacci(n)
fibonacci_sequence
```

Out[7]:
```
[0,
 1,
 1,
 2,
 3,
 5,
 8,
 13,
 21,
 34,
 55,
 89,
 144,
 233,
 377,
 610,
 987,
 1597,
 2584,
 4181,
 6765,
 10946,
 17711,
 28657,
 46368,
 75025,
 121393,
 196418,
 317811,
 514229,
 832040,
 1346269,
 2178309,
 3524578,
 5702887,
 9227465,
 14930352,
 24157817,
 39088169,
 63245986,
 102334155,
 165580141,
 267914296,
 433494437,
 701408733,
 1134903170,
 1836311903,
 2971215073,
 4807526976,
 7778742049,
 12586269025,
 20365011074,
 32951280099,
 53316291173,
 86267571272,
 139583862445,
 225851433717,
 365435296162,
 591286729879,
 956722026041,
 1548008755920,
 2504730781961,
 4052739537881,
 6557470319842,
 10610209857723,
 17167680177565,
 27777890035288,
 44945570212853,
 72723460248141,
 117669030460994,
 190392490709135,
 308061521170129,
 498454011879264,
 806515533049393,
 1304969544928657,
 2111485077978050,
 3416454622906707,
 5527939700884757,
 8944394323791464,
 14472334024676221,
 23416728348467685,
 37889062373143906,
 61305790721611591,
 99194853094755497,
 160500643816367088,
 259695496911122585,
 420196140727489673,
 679891637638612258,
 1100087778366101931,
 1779979416004714189,
 2880067194370816120,
 4660046610375530309,
 7540113804746346429,
 12200160415121876738,
 19740274219868223167,
 31940434634990099905,
 51680708854858323072,
 83621143489848422977,
 135301852344706746049,
 218922995834555169026]
```

In [8]:
```
import math

def calculate_triangle_area(base, height):
    return 0.5 * base * height

def calculate_triangle_perimeter(side1, side2, side3):
    return side1 + side2 + side3

def calculate_rectangle_area(length, width):
    return length * width

def calculate_rectangle_perimeter(length, width):
    return 2 * (length + width)

def calculate_circle_area(radius):
    return math.pi * radius**2

def calculate_circle_circumference(radius):
    return 2 * math.pi * radius

# Example values for the shapes
triangle_base = 5
triangle_height = 8
triangle_side1 = 3
triangle_side2 = 4
triangle_side3 = 5

rectangle_length = 6
rectangle_width = 9

circle_radius = 4

# Calculations and printing results
triangle_area = calculate_triangle_area(triangle_base, triangle_height)
triangle_perimeter = calculate_triangle_perimeter(triangle_side1, triangle_side2, triangle_side3)

rectangle_area = calculate_rectangle_area(rectangle_length, rectangle_width)
rectangle_perimeter = calculate_rectangle_perimeter(rectangle_length, rectangle_width)

circle_area = calculate_circle_area(circle_radius)
circle_circumference = calculate_circle_circumference(circle_radius)

# Print results
print(f"Triangle Area: {triangle_area}")
print(f"Triangle Perimeter: {triangle_perimeter}")

print(f"\nRectangle Area: {rectangle_area}")
print(f"Rectangle Perimeter: {rectangle_perimeter}")

print(f"\nCircle Area: {circle_area}")
print(f"Circle Circumference: {circle_circumference}")
```

```
Triangle Area: 20.0
Triangle Perimeter: 12

Rectangle Area: 54
Rectangle Perimeter: 30

Circle Area: 50.26548245743669
Circle Circumference: 25.132741228718345
```

In [ ]: