🧠 **Topic 8: Math Module**

◆ **Definition**

The **math module** provides mathematical functions like sqrt, factorial, sin, cos, log, etc.

◆ **Example + Output**

import math

print(math.sqrt(16))   # 4.0

print(math.factorial(5)) # 120

print(math.pi) # 3.141592653589793

◆ **Challenges**

Solved Challenge 1: Round down a number

import math

print(math.floor(4.7)) # Output: 4

Solved Challenge 2: Calculate 2^3

import math

print(math.pow(2,3)) # Output: 8.0

Your 18 Challenges:

1. Calculate square root of 81.

2. Calculate factorial of 7.

3. Print value of pi.

4. Round up 4.3.

5. Absolute value of -15.

6. Logarithm of 100.

7. Power of 5^4.

8. Cosine of 0.

9. Sine of 90 degrees (convert to radians first).

10. Tangent of 45 degrees.

11. Max of 10, 20, 30.

12. Min of 5, 9, 2.

13. Convert 90 degrees to radians.

14. Convert 3.1416 radians to degrees.

15. Ceiling of 4.1.

16. Find remainder using math.fmod().

17. Square of 12.

18. Sum of sqrt of numbers in a list.