Section A: Function with return Statement

1. Return Square of a Number

★ Write a function get_square(num) that returns the square of the number.

Hint: Use return num * num.

2. Return the Maximum of Two Numbers

★ Define get_max(a, b) that returns the larger of the two.

Hint: Use if or the built-in max() function.

3. Check Even or Odd (Return Message)

★ Write a function check_even_odd(num) that returns "Even" or "Odd".
Hint: Use if num % 2 == 0.

4. Return Sum of Digits

Create sum_digits(n) that returns the sum of all digits in the number.

Hint: Use loop and n % 10, n //= 10.

5. Return Factorial of a Number

★ Write a function get_factorial(n) that returns the factorial of n.

Hint: Multiply numbers from 1 to n.

6. Check Prime Number (Return Boolean)

★ Create is_prime(num) that returns True if number is prime, else False.

Hint: Use loop from 2 to num-1.

7. Return the Reverse of a Number

★ Define reverse_number(n) that returns the reversed number.

Hint: Use loop to extract digits and build reverse.

8. Count Vowels in a String

★ Write count_vowels(text) that returns the number of vowels in a string.

Hint: Check if each character is in 'aeiouAEIOU'.

9. Return GCD of Two Numbers

Create get_gcd(a, b) that returns the GCD of two numbers.

Hint: Use Euclidean algorithm or loop.

10. Return Palindrome Status

★ Write is_palindrome(text) that returns True if the string is a palindrome.

Hint: Compare text == text[::-1].

Section B: Using math Module + Return

Use import math at the top of your script.

11. Return Square Root

 \nearrow Define get_sqrt(x) that returns the square root using math.sqrt().

Hint: return math.sqrt(x)

12. Return Ceiling and Floor of a Number

★ Write a function ceil_and_floor(x) that returns both ceiling and floor of a number.

Hint: Use math.ceil() and math.floor().

13. Return Value of sin(x)

 \mathcal{R} Create get_sin(x) that returns sin(x) in radians.

Hint: math.sin(x)

14. Return Area of Circle

📌 Write circle_area(radius) that returns area using πr².

Hint: Use math.pi.

15. Return Power of a Number

★ Define get_power(base, exp) that returns base^exp.

Hint: Use math.pow(base, exp) or **.

16. Return Factorial using math Module

Hint: No need for loops.

17. Return Hypotenuse of Right Triangle

 \nearrow Create get_hypotenuse(a, b) that returns $\sqrt{(a^2 + b^2)}$.

Hint: Use math.sqrt(a**2 + b**2).

18. Convert Degrees to Radians

₱ Define deg_to_rad(deg) that returns radians.

Hint: math.radians(deg)

19. Convert Radians to Degrees

→ Define rad_to_deg(rad) that returns degrees.

Hint: math.degrees(rad)

20. Logarithm Base 10 of a Number

 \ref{Model} Write get_log10(x) that returns the base-10 logarithm.

Hint: math.log10(x)