

1. **Basic (Program):** Write a Python script that prints the phrase "Welcome to Python Programming!" to the console. Include a single-line comment in your script explaining what the print() function does.
2. **Intermediate (Program):** Write a Python script that demonstrates the use of logical operators.
 - Declare two boolean variables: is_member and has_discount. Assign True to is_member and False to has_discount.
 - Print the result of the expression is_member and has_discount.
 - Print the result of the expression is_member or has_discount.
 - Print the result of the expression not is_member.
 - Add comments explaining what each logical operator (and, or, not) does.
3. **Intermediate (Program):** Create a Python script that declares three variables: product_name (string), quantity (integer), and unit_price (float). Assign appropriate values to these variables. Then, use the print() function to display a sentence combining these variables, for example: "You have purchased [Quantity] units of [Product Name] at \$[Unit Price] each."
4. **Basic (Program):** Write a Python program that declares a variable named is_active_user and assigns it a boolean value of True. Then, print the value of this variable to the console.
5. **Intermediate (Program):** Develop a Python script that calculates the area of a rectangle.
 - Prompt the user to enter the length and width of the rectangle using the input() function.
 - Calculate the area using the formula: length * width.
 - Print the calculated area to the console.
 - Ensure that all user inputs are correctly converted to numerical types (e.g., float or int) before performing calculations.
6. **Intermediate (Program):** Write a Python script that demonstrates the use of arithmetic, assignment, and comparison operators.
 - Initialize a variable initial_balance with a value of 1000.
 - Add 250 to initial_balance using an assignment operator.
 - Divide initial_balance by 2 using an arithmetic operator.
 - Finally, use a comparison operator to check if initial_balance is less than 600, and print the boolean result of this comparison.
7. **Intermediate (Program):** Write a Python script to evaluate the following mathematical expression and print the final result. Add comments within your script to explain the order of operations (operator precedence) that Python

follows to arrive at the result:

$\text{result} = 15 + 4 * 3 - 9 / 3$

8. **Intermediate (Program):** Create a Python program that asks the user for their favorite decimal number (e.g., 3.14). The input will initially be a string. Convert this input to a float, then add 10.5 to it, and finally print the new calculated number.
9. **Basic (Program):** Write a Python script that prompts the user to enter their favorite color. After the user enters the color, print a message back to them in the format: "Your favorite color is: [Favorite Color]".
10. **Advanced (Program):** Develop a Python script that collects basic contact information.
 - Ask the user to enter their first_name.
 - Ask the user to enter their last_name.
 - Ask the user to enter their phone_number (as a string).
 - Print a summary message like: "Contact information saved for: [First Name] [Last Name] (Phone: [Phone Number])".