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Code Gemini

Practice Questions on Functions

1. Difference Between `print` and `return`

- **Q1:** Write a function `sum_numbers(a, b)` that takes two numbers as input and does the following:
    - Prints the sum of the numbers.
    - Returns the sum of the numbers.
    - Call the function and explain the difference between the `print` and `return` values.

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2. Local and Global Variables

- **Q2:** Write a program where:
    - You define a global variable `counter` with an initial value of 0.
    - Create a function `increment()` that increments `counter` by 1 each time it is called and prints its value.
    - Call the function three times and observe the output.
- **Q3:** Write a function `demo_local()` that declares a local variable `message = "Hello, Local"` and prints it.
  Outside the function, try to print the same `message` variable and note the error.
- **Q4:** Modify `demo_local()` from the previous question to access a global variable `message = "Hello, Global"` from within the function.

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3. Writing Docstrings

- **Q5:** Write a function `greet(name)` that takes a name as input and returns a greeting message like `"Hello, John!"`.
    - Add a proper docstring describing the purpose of the function, its input parameter, and its return value.
    - Use `help()` to display the docstring.
- **Q6:** Write a function `calculate_area(radius)` to compute the area of a circle given its radius.
    - Add a docstring explaining the formula used for calculation and the purpose of the function.

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4. Functions with Return

- **Q7:** Write a function `is_even(n)` that returns `True` if a number is even, otherwise returns `False`. Test the function with multiple inputs.

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