**Question 1: Expression vs. Statement**

**What is the difference between an expression and a statement in Python?**

Hint: Consider how expressions produce a value and how statements perform an action.

**Question 2: Identifying Expressions**

**Identify which of the following is an expression:**

* **x = 5**
* **3 + 4**

Hint: Determine which of these can be evaluated to produce a value.

**Question 3: Statement Execution**

**What happens when a statement is executed in Python?**

Hint: Think about the purpose of statements in a Python program, such as variable assignment or control flow.

**Question 4: Function Calls as Expressions**

**Can a function call be considered an expression? Provide an example.**

Hint: Evaluate whether function calls return a value.

**Question 5: Compound Statements**

**What is a compound statement in Python, and how does it differ from simple statements?**

Hint: Consider examples of compound statements like **if-else** blocks and how they are structured compared to simple statements.

**Question 6: Evaluating Complex Expressions**

**Evaluate the expression 3 \* (4 + 5). What type of operation does this demonstrate?**

Hint: This involves arithmetic operations and the order of operations.

**Question 7: Expression Evaluation Order**

**Describe how Python determines the order of evaluation in complex expressions.**

Hint: Think about operator precedence and parentheses.

**Question 8: Side Effects in Expressions**

**Can expressions have side effects? Give an example involving a function call within an expression.**

Hint: Consider an expression that includes a function call, where the function modifies a variable or performs I/O operations.

**Question 9: The Role of Expressions in Statements**

**How are expressions used within statements in Python? Provide an example using a variable assignment.**

Hint: Reflect on how the result of an expression can be assigned to a variable.

**Question 10: Converting Statements to Expressions**

**Is it always possible to convert a statement into an expression? Discuss with examples related to control flow.**

Hint: Consider the implications of trying to convert an **if** statement into an expression and the tools Python offers to handle such scenarios.