**Python Operators: GCSE Computing OCR Worksheet**

**What is an Operator?**

In Python, **operators** are special symbols or keywords that perform specific operations on one or more values. These values are called **operands**. For example, the + operator adds two numbers together. Operators are used in arithmetic, comparison, logical operations, and more.

Python has several types of operators, such as:

* **Arithmetic operators**: Perform mathematical operations (e.g., +, -, \*, /).
* **Comparison operators**: Compare values and return True or False (e.g., ==, <, >).
* **Logical operators**: Combine conditional statements (e.g., and, or, not).

Let’s explore these with examples.

**Examples of Python Operators**

**Example 1: Arithmetic Operators**

x = 10

y = 3

result = x + y # Adds x and y

print(result) # Output: 13

**Example 2: Comparison Operators**

x = 10

y = 15

is\_greater = x > y # Checks if x is greater than y

print(is\_greater) # Output: False

**Example 3: Logical Operators**

x = 5

y = 10

condition = x < y and y > 0 # Checks if both conditions are True

print(condition) # Output: True

**Tasks**

**Task 1: Using Arithmetic Operators**

Write a Python program to calculate the area of a rectangle. The program should take the width and height as input and output the area.

**Hint:** Use the \* operator for multiplication.

**Task 2: Using Comparison Operators**

Write a Python program that checks if a number entered by the user is equal to 100. Print True if it is and False otherwise.

**Task 3: Using Logical Operators**

Write a Python program that checks if a given number is between 1 and 10 (inclusive). Print True if it is, and False otherwise.

**Solutions**

**Solution 1: Using Arithmetic Operators**

# Solution for Task 1

width = float(input("Enter the width of the rectangle: "))

height = float(input("Enter the height of the rectangle: "))

area = width \* height

print("The area of the rectangle is:", area)

**Solution 2: Using Comparison Operators**

# Solution for Task 2

number = int(input("Enter a number: "))

print(number == 100)

**Solution 3: Using Logical Operators**

# Solution for Task 3

number = int(input("Enter a number: "))

print(number >= 1 and number <= 10)

**Summary**

* **Arithmetic operators** are used for mathematical calculations.
* **Comparison operators** compare two values and return a Boolean result.
* **Logical operators** combine conditions and return True or False.

Practice these tasks to build a strong understanding of Python operators!