

## Day 2 Problems: Control Structures

### Problem 1: Positive or Negative

**Objective:** Write a program that checks if a number is positive, negative, or zero.

**Solution:**pythonCopy code

```
num = int(input("Enter a number: "))
if num > 0:
    print("The number is positive.")
elif num == 0:
    print("The number is zero.")
else:
    print("The number is negative.")
```

### Problem 2: Even or Odd

**Objective:** Write a program that checks if a number is even or odd.

**Solution:**pythonCopy code

```
num = int(input("Enter a number: "))
if num % 2 == 0:
    print("The number is even.")
else:
    print("The number is odd.")
```

### Problem 3: Print Numbers

**Objective:** Write a program that prints numbers from 1 to 10 using a loop.

**Solution:**pythonCopy code

```
for i in range(1, 11):
    print(i)
```

### Problem 4: Sum of Numbers

**Objective:** Write a program that calculates the sum of numbers from 1 to 100.

**Solution:**pythonCopy code

```
total = 0
for i in range(1, 101):
    total += i
print("The sum is:", total)
```

### **Problem 5: Factorial**

**Objective:** Write a program that calculates the factorial of a number.

**Solution:**pythonCopy code

```
num = int(input("Enter a number: "))
factorial = 1
for i in range(1, num + 1):
    factorial *= i
print("The factorial is:", factorial)
```