**Test Data**

**Valid Infix Expressions**

1. **Basic Arithmetic Operations:**
   * Expression: 1+2\*3
     + Expected Postfix: 123\*+
     + Expected Result: 7
   * Expression: 4-3/2
     + Expected Postfix: 432/-
     + Expected Result: 2
2. **Parentheses:**
   * Expression: (1+2)\*3
     + Expected Postfix: 12+3\*
     + Expected Result: 9
   * Expression: 4/(3-2)
     + Expected Postfix: 432-
     + Expected Result: 4
3. **Mixed Operations:**
   * Expression: 1+2\*3/4-5
     + Expected Postfix: 123\*4/5-+
     + Expected Result: 0.5
   * Expression: 10\*(3-2)+5
     + Expected Postfix: 1032-\*5+
     + Expected Result: 15

**Invalid Infix Expressions**

1. **Syntax Errors:**
   * Expression: 1++2
     + Expected Error: "Invalid operator sequence"
   * Expression: 5/(3\*)2
     + Expected Error: "Invalid operator sequence"
2. **Parentheses Errors:**
   * Expression: 1+(2\*3
     + Expected Error: "Unbalanced parentheses"
   * Expression: 4-3)/2
     + Expected Error: "Unbalanced parentheses"
3. **Other Errors:**
   * Expression: 1 + 2 \* 3
     + Expected Error: "Expression contains spaces"
   * Expression: ``
     + Expected Error: "Empty expression"