

**Test cases for Simple Calculator:**

| Test Case No | Test Case  | Input  | Expected output  | Actual output  |
|--------------|--|--|--|--|
| 1            | Addition of two positive numbers                       | Enter the first number: 10<br>Enter the second number: 5<br>Enter the operation number between 1 to 5: 1     | Result: $10.0 + 5.0 = 15.0$  | Result: $10.0 + 5.0 = 15.0$  |
| 2            | Addition of one positive and one negative number       | Enter the first number: - 10<br>Enter the second number: 5<br>Enter the operation number between 1 to 5: 1   | Result: $- 10.0 + 5.0 = - 5.0$   | Result: $- 10.0 + 5.0 = - 5.0$   |
| 3            | Subtraction of two numbers                             | Enter the first number: 15<br>Enter the second number: 5<br>Enter the operation number between 1 to 5: 2     | Result: $15.0 - 5.0 = 10.0$  | Result: $15.0 - 5.0 = 10.0$  |
| 4            | Subtraction of two negative numbers                    | Enter the first number: - 15<br>Enter the second number: - 5<br>Enter the operation number between 1 to 5: 2 | Result: $- 15.0 - - 5.0 = -10.0$   | Result: $- 15.0 - - 5.0 = - 10.0$  |
| 5            | Multiplication of two numbers                          | Enter the first number: 3<br>Enter the second number: 4<br>Enter the operation number between 1 to 5: 3      | Result: $3.0 * 4.0 = 12.0$   | Result: $3.0 * 4.0 = 12.0$   |
| 6            | Multiplication of one positive and one negative number | Enter the first number: 3<br>Enter the second number: - 4<br>Enter the operation number between 1 to 5: 3    | Result: $3.0 * - 4.0 = -12.0$  | Result: $3.0 * - 4.0 = -12.0$  |
| 7            | Division of two positive numbers                       | Enter the first number: 10<br>Enter the second number: 2<br>Enter the operation number between 1 to 5: 4     | Result: $10.0 / 2.0 = 5.0$   | Result: $10.0 / 2.0 = 5.0$   |
| 8            | Division of one positive and one negative number       | Enter the first number: 10<br>Enter the second number: - 2<br>Enter the operation number between 1 to 5: 4   | Result: $10.0 / - 2.0 = - 5.0$   | Result: $10.0 / - 2.0 = - 5.0$   |
| 9            | Modulo of two positive numbers                         | Enter the first number: 60<br>Enter the second number: 8<br>Enter the operation number between 1 to 5: 5     | Result: $60.0 / 8.0 = 4.0$   | Result: $60.0 / 8.0 = 4.0$   |
| 10           | Division by Zero                                       | Enter the first number: 10<br>Enter the second number: 0<br>Enter the operation number between 1 to 5: 4     | Result: $10.0 / 0.0 = \text{Error: Oops!}$<br>You have entered a wrong number.<br>Division by zero is not allowed. | Result: $10.0 / 0.0 = \text{Error: Oops!}$<br>You have entered a wrong number.<br>Division by zero is not allowed. |

| Test Case No | Test Case                     | Input   | Expected output  | Actual output  |
|--------------|-------------------------------|---|--|--|
| 11           | Invalid Number Input          | Enter the first number: k   | Invalid input.<br>Please enter a valid number.                           | Invalid input.<br>Please enter a valid number.                           |
| 12           | Invalid Operation Selection   | Enter the operation number between 1 to 5: 6  | Invalid input.<br>Please select a valid operation number between 1 to 5. | Invalid input.<br>Please select a valid operation number between 1 to 5. |
| 13           | Perform Multiple Calculations | Enter the first number: 6<br>Enter the second number: 3<br>Select an operation (1-4): 1<br>Do you want to perform another calculation? (yes/no): yes<br>Enter the first number: 8<br>Enter the second number: 2<br>Select an operation (1-4): 4<br>Do you want to perform another calculation? (yes/no): no | Result: 6.0 + 3.0<br>= 9.0<br>Result: 8.0 / 2.0<br>= 4.0<br>Goodbye!     | Result: 6.0 + 3.0<br>= 9.0<br>Result: 8.0 / 2.0<br>= 4.0<br>Goodbye!     |