System Level Test

The following will ensure that each math operator performs the desired action. The tests will ensure that each math operator produces the correct answer. The tests will ensure usability of the program.

Multiplication Test

|  |  |  |
| --- | --- | --- |
| **Action** | **Input** | **Expected Output** |
| Launch Program Text: |  | “Enter your first number:” |
| Enter first number | 2 <enter> | “Enter a math operator (+,  -, \*, /, ^):”  Enter math operator \* <enter> Text: “Enter |
| Enter math operator | \* <enter> | “Enter your second  number:” |
| Enter second number | 7 <enter> | “2 \* 7 = 14” |
| Return to main menu |  | Main Menu is displayed |
| Exit program | Q | “BUILD SUCCESSFUL” |

Addition Test

|  |  |  |
| --- | --- | --- |
| **Action** | **Input** | **Expected Output** |
| Launch Program Text: |  | “Enter your first number:” |
| Enter first number | 2 <enter> | “Enter a math operator (+,  -, \*, /, ^):”  Enter math operator \* <enter> Text: “Enter |
| Enter math operator | + <enter> | “Enter your second  number:” |
| Enter second number | 7 <enter> | “2 + 7 = 9” |
| Return to main menu |  | Main Menu is displayed |
| Exit program | Q | “BUILD SUCCESSFUL” |

Subtraction Test

|  |  |  |
| --- | --- | --- |
| **Action** | **Input** | **Expected Output** |
| Launch Program Text: |  | “Enter your first number:” |
| Enter first number | 7 <enter> | “Enter a math operator (+,  -, \*, /, ^):”  Enter math operator \* <enter> Text: “Enter |
| Enter math operator | - <enter> | “Enter your second  number:” |
| Enter second number | 2 <enter> | “7 - 2 = 5” |
| Return to main menu |  | Main Menu is displayed |
| Exit program | Q | “BUILD SUCCESSFUL” |

Division Test

|  |  |  |
| --- | --- | --- |
| **Action** | **Input** | **Expected Output** |
| Launch Program Text: |  | “Enter your first number:” |
| Enter first number | 10 <enter> | “Enter a math operator (+,  -, \*, /, ^):”  Enter math operator \* <enter> Text: “Enter |
| Enter math operator | / <enter> | “Enter your second  number:” |
| Enter second number | 2 <enter> | “10 / 2 = 5” |
| Return to main menu |  | Main Menu is displayed |
| Exit program | Q | “BUILD SUCCESSFUL” |

Power Test

|  |  |  |
| --- | --- | --- |
| **Action** | **Input** | **Expected Output** |
| Launch Program Text: |  | “Enter your first number:” |
| Enter first number | 2 <enter> | “Enter a math operator (+,  -, \*, /, ^):”  Enter math operator \* <enter> Text: “Enter |
| Enter math operator | ^ <enter> | “Enter your second  number:” |
| Enter second number | 7 <enter> | “2 ^ 7 = 128” |
| Return to main menu |  | Main Menu is displayed |
| Exit program | Q | “BUILD SUCCESSFUL” |