**Assignment 3: Devin Suttler**

Fill in the information for each test that you develop for the 4 tables below. Add more rows as required to list all possible tests for each type. Do not repeat tests which have already been used to test a particular description. Use as many rows as needed to capture all of your tests. Each of the four tables may span more than one page if necessary.

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| **Representative Input Tests** | | | | | |
| **Test #** | **Test Description** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | Int Addition | **Data type**: int  **Size**: 5  **NumArrays**:2  **Vec1**: 1,1,1,1,1  **Vec2**: 2,2,2,2,2  **Operation**: Addition | 3,3,3,3,3 | 3,3,3,3,3 | Pass |
| ­2 | Double Sum | **Data type**: double  **Size**: 6  **NumArrays**: 1  **Vec1**: 1,2.5,3.7,4,5,6  **Operation**: Sum | 22.2 | 22.2 | Pass |
| 3 | Float Subtraction | **Data type**: float  **Size**: 5  **NumArrays**: 2  **Vec1**: 3.75, 4, 6.7898, 7, 25  **Vec2**:1.25, 3, 1.2, 2.5, 5  **Operation**: Subtraction | 2.5, 1, 5.5898, 4.5, 20 | 2.5, 1, 5.5898, 4.5, 20 | Pass |
| 4 | Testing the exit function | **Operation:** exit | Exit the program | Exited the program | Pass |

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| **Functional Coverage Tests** | | | | | |
| **Test #** | **Test Description** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | Int Subtraction | **Data type**: int  **Size**: 5  **NumArrays**:2  **Vec1**: 2,2,2,2,2  **Vec2**: 1,1,1,1,1  **Operation**: Subtraction | 1,1,1,1,1 | 1,1,1,1,1 | Pass |
| 2 | Int Multiplication | **Data type**: int  **Size**: 2  **NumArrays**:2  **Vec1**: 4,5  **Vec2**: 5,4  **Operation**: Multiplication | 20,20 | 20,20 | Pass |
| 3 | Double Division | **Data type**: double  **Size**: 15  **NumArrays**:2  **Vec1**: 5,5,5,5,5, 10,10,10,10,10  2,2,2,2,2  **Vec2**: 2,2,2,2,2,2,2,2,2,2, 2,2,2,2,2  **Operation**: Division | 2.5,2.5,2.5,2.5,2.5,  5,5,5,5,5,  1,1,1,1,1 | 2.5,2.5,2.5,2.5,2.5,  5,5,5,5,5,  1,1,1,1,1 | Pass |
| 4 | Double Addition | **Data type**: double  **Size**: 3  **NumArrays**:2  **Vec1**: 1,2,3  **Vec2**: 4,5,6  **Operation**: Addition | 5,7,9 | 5,7,9 | Pass |
| 5 | Int Sum | **Data type**: int  **Size**: 10  **NumArrays**:1  **Vec1**: 1,2,3,4,5,6,7,8,9,10  **Operation**: Sum | 55 | 55 | Pass |
| 6 | Float Multiplication | **Data type**: float  **Size**: 4  **NumArrays**:2  **Vec1**: .5,.50,.5,.50  **Vec2**: 3,4,5,6  **Operation**: Multiplication | 1.5,2,2.5,3 | 1.5,2,2.5,3 | Pass |
| 7 | Float Subtraction | **Data type**: float  **Size**: 3  **NumArrays**:2  **Vec1**: 10.5,9.75,8  **Vec2**: 7.2,3,5.5  **Operation**: Subtraction | 3.3,6.75,2.5 | 3.3,6.75,2.5 | Pass |
| 8 | Float Addition | **Data type**: float  **Size**: 5  **NumArrays**:2  **Vec1**: 8.5,6.5,3.5,4,9  **Vec2**: .5,.5,.5,.5,.5  **Operation**: Addition | 9,7,4,4.5,9.5 | 9,7,4,4.5,9.5 | Pass |

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| **Boundary Values Tests** | | | | | |
| **Test #** | **Test Description** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | Create Array of size 1 | **Type**: int  **Size**:1  **Vec**:100  **Operation**: Sum | 100 | 100 | Pass |
| 2 | Create Array of size 1  And an array of size 20 | **Type**: int  **Size**:20  **Vec1**:1  **Vec2**:1,2,3,4,5,6,7,8,9,10,  11,12,13,14,15,16,17,18,19,20  **Operation**: Addition | After 1 in the first array the rest should fill with 0.  Output: 2,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20 | After 1 in the first array the rest filled with 0.  Output: 2,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20 | Pass |
| 3 | Create Array of size 20 | **Type**: int  **Size**:20  **Vec**:1,1,1,1,1,1,1,1,1,1,  1,1,1,1,1,1,1,1,1,1  **Operation**: Sum | 20 | 20 | Pass |
| 4 | Create Array of size 21 | **Type**: int  **Size**:21  **Vec**:1,1,1,1,1,1,1,1,1,1,  1,1,1,1,1,1,1,1,1,1,1  **Operation**: Sum | Re-prompting for input  Throw error | Re-prompted for input | Pass |

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| **Special Values Tests** | | | | | |
| **Test #** | **Test Description** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | Size:0 | **Type**: float  **Size**:0 | Prompt to re-enter | Prompt to re-enter | Pass |
| 2 | Give a type outside of int, float, double | **Type**: String | Prompt to re-enter  Or throw error | Prompt to re-enter | Pass |
| 3 | Put a character inside the array instead of a number | **Type**: int  **Size**:1  **Vec**:’c’  **Operation**: Sum | Prompt to re-enter or throw error | Threw error and terminated program | Pass |
| 4 | Do not enter any values for the array | **Type**: int  **Size**:5  **Vec**:  **Operation**: Sum | Fill array with 0  0 | Filled array with 0  0 | Pass |