# Test Description

**Test Name or ID**: T1F04

**Test Type**: Black box

**Setup:** we are using visual studio and implementing the functions using Euclidean distance and a shortest path algorithm are used to calculate distances between trucks and destinations.

**Test Scenarios:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| isDestValid(): Check if the destination is a valid building | routeMap, destRow, destCol | Returns true if the destination is a valid building | Test case 1 passed! Test case 2 passed! | Pass |
| CheckDeskInput(); Check if the destination input is correctly formatted | inputString, rowNum, columnChar | Returns true if the input is correctly formatted | Test case 1 passed! Test case 2 failed! (Unexpected result) Test case 3 passed! | Fail |
| validateWeight(): Validate the weight of the truck | weight | Returns true if the weight is within valid range | Test case 1 passed! Test case 2  passed | Pass |
| validateBoxSize(): Validate the size of the truck | boxSize | Returns true of boxSize is valid | Test case 1 passed! Test case 2 failed! (Unexpected result) Test case 3 passed! | Fail |
| getSym(): Get the symbol at a given position on the route map | routeMap, row, column | Returns the symbol at the given position | Test case 1 passed! Test case 2 passed! | Pass |
| convertToCoordinate():  Convert row and column to coordinate | row, column | Returns a Coordinate struct from row and column | Test case 1 passed! Test case 2 passed! | Pass |
| printDiversion(): Print diversion route | diversionRoute, originalRoute, destination | Prints the diversion route | Test case 1 passed! Test case 2 failed! (Unexpected result) Test case 3 passed! | Fail |

**Bugs Found**:

The printDiversion() function does not print the diversion route correctly under certain conditions, resulting in incomplete or inaccurate output, Description: The validateBoxSize() function does not correctly validate box sizes in certain edge cases, leading to incorrect validation results.