## Test Plan

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| ID | Description | Pre-Condition | Expected Input | Expected Output | Actual Output |
| HL1\_L1 | Addition of values | Choose addition from all options | Two int operands | Sum of the two operands |  |
| HL1\_L1 | Addition of values | Choose addition from all options | Any one int operand >= to 65535 | Error as int return value can only give 65535 |  |
| HL1\_L2 | Subtraction of values | Choose subtract from all options | Two int operands | difference of the two operands |  |
| HL1\_L2 | Subtraction of values | Choose subtract from all options | Any one int operand >= to 65535 | Error as int return value can only give 65535 |  |
| HL1\_L3 | Multiplication of values | Choose multiply from all the options | Two int operands | Product of two operands |  |
| HL1\_L4 | Division of values | Choose divide from all the options | Two non zero int operands | division of two operands |  |
| HL1\_L4 | Division of values | Choose divide from all the options | Two int operands with divisor 0 | Divide by 0 error |  |
| HL2\_L1 | Nth Power | Choose Power from all the options | Two non zero int operands | Operand1 raised to power of operand2 |  |
| HL2\_L1 | Nth Power | Choose Power from all the options | Two int operands with operand2 =0 | Return 1 |  |
| HL2\_L2 | Square | Choose Square from all the options | One int operand | Returns operand raised to power 2 |  |
| HL2\_L3 | Factorial | Choose factorial from all the options | One int operand non zero and non negative | Returns factorial of operand |  |
| HL2\_L3 | Factorial | Choose factorial from all the options | One int operand equal to 0 | Returns 1 |  |
| HL2\_L3 | Factorial | Choose factorial from all the options | One int operand negative | Error and return -1 |  |
| HL2\_L4 | Greater | Choose Greater from all the options | Two int operands | Greater of operand1 and operand 2 |  |
| HL2\_L5 | Smaller | Choose Smaller from all the options | Two int operands | Smaller of operand1 and operand 2 |  |
| HL2\_L6 | Prime | Choose prime from all the options | One int operand non zero and non negative | Returns if prime or not |  |
| HL2\_L6 | Prime | Choose prime from all the options | One int operand equal to 0 or 1 | Error and returns -1 |  |
| HL2\_L6 | Prime | Choose prime from all the options | One int operand negative | Error and return -1 |  |
| HL2\_L7 | Modulus | Choose modulus from all the options | Two int operands | Returns the remainder |  |
| HL2\_L8 | Square root | Choose modulus from all the options | One int operand | Returns float value of square root of operand1 |  |
| HL3\_L1 | Sin Value | Choose sinvalue from all the options | One float operand | Returns sine of operand1 in float |  |
| HL3\_L2 | Cos Value | Choose cosvalue from all the options | One float operand | Returns cosine of operand1 in float |  |
| HL3\_L3 | Tan Value | Choose tanvalue from all the options | One float operand not 90 degrees | Returns sine of operand1 tangent in float |  |
| HL3\_L3 | Tan Value | Choose tanvalue from all the options | One float operand equal 90 degrees | Error as value not defined returns -1 |  |
| HL4\_L1 | Centimeter to meter | Choose CMTOM from all the options | One float operand | Returns value in meters in float |  |
| HL4\_L2 | Meter to centimeter | Choose MTOCM from all the options | One float operand | Returns value in centimeters in float |  |
| HL4\_L3 | Meter to kilometer | Choose MTOKM from all the options | One float operand | Returns value in kilometers in float |  |
| HL4\_L4 | Kilometer to meter | Choose KMTOM from all the options | One float operand | Returns value in meters in float |  |
| HL4\_L5 | Inch to centimeter | Choose INCHTOM from all the options | One float operand | Returns value in centimeters in float |  |
| HL4\_L6 | Centimeter to inch | Choose MTOINCH from all the options | One float operand | Returns value in inches in float |  |

Table 1 Test Plan for multi use calculator