# Test Specification Template for functional units

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| Unit Name | Square | |
| Summary (e.g. Interface spec) | produces the square of an input number n | |
| Input Type(s) | Input Value(s) | Expected Result |
| Integer | 0 | 0 |
| Integer | 3 | 9 |
| Integer | -3 | 9 |
| Integer | 10 | 100 |
| Integer | -20 | 400 |
| Integer | MAX\_INT | OverflowException |

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| Unit Name | Square Root | |
| Summary (e.g. Interface spec) | produces the square root of a non-negative input number n | |
| Input Type(s) | Input Value(s) | Expected Result |
| Integer | 4 | 2 |
| Integer | 2 | 1.414 |
| Integer | -3 | Negative Number Exception |
| Integer | 0 | 0 |
| Integer | 225 | 15 |
| Integer | MAX\_INT | 46340.950001051984 |

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| Unit Name | Factorial | |
| Summary (e.g. Interface spec) | produces the factorial of a non-negative integer n | |
| Input Type(s) | Input Value(s) | Expected Result |
| Integer | 0 | 1 |
| Integer | 1 | 1 |
| Integer | 2 | 2 |
| Integer | -6 | Negative Number Exception |
| Integer | 6 | 720 |
| Integer | MAX\_INT | OverflowException |