**TEST PLAN**

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| **ID** | **DESCRIPTION** | **PRE-CONDITION** | **EXPECTED INPUT** | **EXPECTED OUTPUT** | **ACTUAL OUTPUT** |
| **HL\_01\_IT\_01** | Test Different properties of the given number | The number must be positive | Any Number | PASS/FAIL |  |
| **HL\_02\_IT\_01** | Test for the divisibility of number | The number must be positive | Any Number | Divisible |  |
| **HL\_03\_IT\_01** | Perform different operations | The number must be positive | Any Number | Result of the operation |  |
| **HL\_01\_LL\_01\_UT\_01** | Testing with a prime number | The number must be positive | 1 | The number is prime |  |
| **HL\_01\_LL\_01\_UT\_02** | Testing with a non- prime number | The number must be positive | 48 | The number is not prime |  |
| **HL\_01\_LL\_02\_UT\_01** | Testing with an Armstrong number | The number must be positive | 153 | The number is Armstrong |  |
| **HL\_01\_LL\_02\_UT\_02** | Testing with non- Armstrong number | The number must be positive | 15 | The number is not Armstrong |  |
| **HL\_01\_LL\_03\_UT\_01** | Testing with an even number | The number must be positive | 2 | The number is Even |  |
| **HL\_01\_LL\_03\_UT\_02** | Testing with an odd number | The number must be positive | 5 | The number is Odd |  |
| **HL\_01\_LL\_04\_UT\_01** | Testing with a palindrome number | The number must be positive | 1551 | The number is Palindrome |  |
| **HL\_01\_LL\_04\_UT\_02** | Testing with a number which is not a palindrome | The number must be positive | 15 | The number is not Palindrome |  |
| **HL\_01\_LL\_05\_UT\_01** | Testing with a number which is a power of 2 | The number must be positive | 4 | The number is a power of 2 |  |
| **HL\_01\_LL\_05\_UT\_02** | Testing with a number which is not a power of 2 | The number must be positive | 5 | The number is not a power of 2 |  |
| **HL\_01\_LL\_06\_UT\_01** | Testing with a Harshad number | The number must be positive | 156 | The number is Harshad |  |
| **HL\_01\_LL\_06\_UT\_02** | Testing with a non- Harshad number | The number must be positive | 15 | The number is not harshad |  |
| **HL\_01\_LL\_07\_UT\_01** | Testing with a perfect square | The number must be positive | 25 | The number is a perfect square |  |
| **HL\_01\_LL\_07\_UT\_02** | Testing with a number which is not a perfect square | The number must be positive | 8 | The number is not a perfect square |  |
| **HL\_01\_LL\_08\_UT\_01** | Testing with a perfect cube | The number must be positive | 8 | The number is a perfect cube |  |
| **HL\_01\_LL\_08\_UT\_02** | Testing with a number which is not a perfect cube | The number must be positive | 5 | The number is not a perfect cube |  |
| **HL\_01\_LL\_09\_UT\_01** | Testing with an automorphic number | The number must be positive | 5 | The number is automorphic |  |
| **HL\_01\_LL\_09\_UT\_02** | Testing with a non- automorphic number | The number must be positive | 78 | The number is not automorphic |  |
| **HL\_02\_LL\_01\_UT\_01** | Testing with a number divisible by 3 | The number must be positive | 6 | The number is divisible by 3 |  |
| **HL\_02\_LL\_01\_UT\_02** | Testing with a number not divisible by 3 | The number must be positive | 7 | The number is not divisible by 3 |  |
| **HL\_02\_LL\_02\_UT\_01** | Testing with a number divisible by 5 | The number must be positive | 25 | The number is divisible by 5 |  |
| **HL\_02\_LL\_02\_UT\_02** | Testing with a number not divisible by 5 | The number must be positive | 8 | The number is not divisible by 5 |  |
| **HL\_02\_LL\_03\_UT\_01** | Testing with a number divisible by 7 | The number must be positive | 49 | The number is divisible by 7 |  |
| **HL\_02\_LL\_03\_UT\_02** | Testing with a number not divisible by 7 | The number must be positive | 8 | The number is not divisible by 7 |  |
| **HL\_03\_LL\_01\_UT\_01** | Testing Addition | The number must be positive | 15  12 | 27 |  |
| **HL\_03\_LL\_02\_UT\_01** | Testing Subtraction | The number must be positive | 48  5 | 43 |  |
| **HL\_03\_LL\_03\_UT\_01** | Testing Multiplication | The number must be positive | 5  6 | 30 |  |
| **HL\_03\_LL\_04\_UT\_01** | Testing Division | The number must be positive | 25  5 | 5 |  |