### Test Plan

Table 1: Test cases for calculator

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| **ID** | **Description** | **Preconditions** | **Expected input** | **Expected Output** | **Actual output** |
| 1 | Addition of two positive numbers | integer numbers  only | Num1= 10  Num2=20 | 30 | 30 |
| 2 | Addition of two negative numbers | integer numbers  only | Num1=-10  Num2=-20 | -30 | 30 |
| 3 | Addition of one positive and one negative | integer numbers  only | Num1=10  Num2=-20 | -10 | -10 |
| 4 | subtraction of two positive numbers | integer numbers  only | Num1=20  Num2=10 | 10 | 10 |
| 5 | Subtraction of two Negative numbers | Integer numbers  only | Num1=-20  Num2=-10 | -10 | -10 |
| 6 | Subtraction of one positive and one negative | positive numbers  only | Num1=-20  Num2=10 | -30 | -30 |
| 7 | Multiplication of two positive numbers | integer numbers  only | Num1=10  Num2=20 | 200 | 200 |
| 8 | Multiplication of two negative numbers | integer numbers  only | Num1=-10  Num2=-20 | 200 | 200 |
| 9 | Multiplication of one positive and one negative | integer numbers  only | Num1=-10  Num2=20 | -200 | -200 |
| 10 | Division of valid dividend and divisor | Non-zero integer numbers | Dividend=20  Divisor=2 | 10 | 10 |
| 11 | Division with divisor zero | Divisor should be zero | Dividend=10  Divisor=0 | Displays “zero” | Displays “zero” |
| 12 | Modulus of positive number | Positive integers only | Num1=5  Num2=2 | 1 | 1 |
| 13 | Modulus of negative number | One number should be negative | Num1=-5  Num2= 2 | Displays “invalid input” | Displays “invalid input” |
| 14 | Factorial of positive number | Positive number | Num=4 | 24 | 24 |
| 15 | Factorial of “0” | Input should be Zero | Num=0 | 1 | 1 |
| 16 | Factorial of negative number | Negative number | Num=-3 | 0 | 0 |