Calculator Program

Test cases

TestID	Input Description	Expected	Actual
1	0+1	1	1
2	1+1	2	2
3	3^400	7.05508E+190	NaN
4	NaN+NaN	NaN	NaN
5	NaN+2	NaN	NaN
6	Entering nothing		0
7	5^^3	NaN	1
8	500 - 5	495	NaN
9	5 ^ 2	25	25
10	5(2)	10	52
11	1--1	2	NaN
12	5*(2)	10	10
13	2/5	0.4	0.4
14	10+10	20	20
15	3+3/10	3.3	3.3
16	9+9.9	18.9	18.9
17	8^(1+1)	64	64
18	64-8^2	0	3136
19	2+2+2	6	6
20	(2*(3+5))	16	16
21	16^0.5	4	4
22	100*100/100	100	100
23	5/6-	NaN	NaN
24	0.1+0.2	0.3	0.3
25	9/10	0.9	0.9

Triangle Program

Equivalence Classes

Input Condition	Valid Equivalence Classes	Invalid Equivalence Classes
Triangle type	Isosceles (1) Scalene (2) Equilateral (3)	N/A
Valid triangle	a + b > c (4)	a + b = c (7) a + b < c (8)
Number of input arguments	3 (5)	No arguments (9) Less than 3 (10) Greater than 3 (11)
Argument type	Positive integer (6)	Negative integer (12) Non-integer (13) Non-numeric (14)

Test cases

TestID	Input Description	a	b	c	Expected	Actual
1	Isosceles	5	5	3	Isosceles	Isosceles
2	Scalene	13	9	14	Scalene	Scalene
3	Equilateral	2	2	2	Equilateral	Equilateral
4	No arguments				ERROR: Not enough arguments	ERROR: Not enough arguments
5	Not enough arguments	1			ERROR: Not enough arguments	ERROR: Not enough arguments
6	Too many arguments	1	1	1 1	ERROR: Too many arguments	ERROR: Too many arguments
7	Argument with one negative	-1	1	1	ERROR: Invalid argument - non positive value	ERROR: Invalid argument - non positive value
8	Argument with two negatives	-1	-1	1	ERROR: Invalid argument - non positive value	ERROR: Invalid argument - non positive value
9	Argument with three negatives	-1	-1	-1	ERROR: Invalid argument - non positive value	ERROR: Invalid argument - non positive value
10	Argument with decimal	1.1	1.1	1.1	ERROR: Invalid argument - non integer	ERROR: Invalid argument - non integer
11	Argument with zero	0	1	1	ERROR: Invalid argument - non positive value	ERROR: Invalid argument - non positive value

12	All arguments zero	0	0	0	ERROR: Invalid argument - non positive value	ERROR: Invalid argument - non positive value
13	a + b = c	3	3	6	ERROR: Invalid triangle	Isosceles
14	a + b < c	3	3	7	ERROR: Invalid triangle	ERROR: Invalid triangle
15	String input	a	b	c	ERROR: Invalid argument - non integer	ERROR: Invalid argument - non integer