

**IT-313 Software
Engineering**
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LAB-8

Test Description	Input Values (a, b, c)	Output of the Code	Expected Output	Output Matches Expected
Equilateral Triangle Test	a = 5, b = 5, c = 5	EQUILATERAL	EQUILATERAL	True
Isosceles Triangle Test (a = b)	a = 4, b = 4, c = 3	ISOSCELES	ISOSCELES	True
Isosceles Triangle Test (a = c)	a = 3, b = 4, c = 3	ISOSCELES	ISOSCELES	True
Isosceles Triangle Test (b = c)	a = 4, b = 3, c = 3	ISOSCELES	ISOSCELES	True
Scalene Triangle Test	a = 3, b = 4, c = 5	SCALENE	SCALENE	True

Invalid Triangle Test (Sum < 3rd)	a = 1, b = 2, c = 4	INVALID	INVALID	True
Invalid Triangle Test (Sum = 3rd)	a = 2, b = 3, c = 5	INVALID	INVALID	True
Invalid Triangle Test (Negative)	a = -2, b = 3, c = 4	INVALID	INVALID	True
Invalid Triangle Test (Zero)	a = 0, b = 3, c = 4	INVALID	INVALID	True
Max Values Test (EQUILATERAL)	a = 2147483647, b = 2147483647, c = 2147483647	EQUILATERAL	EQUILATERAL	True
Min Values Test (EQUILATERAL)	a = 1, b = 1, c = 1	EQUILATERAL	EQUILATERAL	True
Large Isosceles Test (ISOSCELES)	a = 1000, b = 1000, c = 500	ISOSCELES	ISOSCELES	True

Large Scalene Test (SCALENE)	a = 1000, b = 1500, c = 2000	SCALENE	SCALENE	True
Decimal Input Test (INVALID)	a = 1.5, b = 2, c = 2.5	INVALID	INVALID	True
Zero Side Length Test (INVALID)	a = 0, b = 2, c = 3	INVALID	INVALID	True
Sum Equals 3rd Side Test (INVALID)	a = 7, b = 3, c = 4	INVALID	INVALID	True
Negative Side Length Test (INVALID)	a = 5, b = -3, c = 4	INVALID	INVALID	True
Zero and Negative Values Test (INVALID)	a = -2, b = 0, c = -1	INVALID	INVALID	True
Large Differences Test (SCALENE)	a = 1000000, b = 1000001, c = 1000002	SCALENE	SCALENE	True

Negative a (INVALID)	a = -1, b = 2, c = 3	INVALID	INVALID	True
Negative b (INVALID)	a = 1, b = -2, c = 3	INVALID	INVALID	True
Negative c (INVALID)	a = 1, b = 2, c = -3	INVALID	INVALID	True
a = 0 (INVALID)	a = 0, b = 2, c = 3	INVALID	INVALID	True
b = 0 (INVALID)	a = 2, b = 0, c = 3	INVALID	INVALID	True
c = 0 (INVALID)	a = 2, b = 3, c = 0	INVALID	INVALID	True
a = 1, b = 1, c = 2 (INVALID)	a = 1, b = 1, c = 2	INVALID	INVALID	True
a = 1, b = 2, c = 1 (INVALID)	a = 1, b = 2, c = 1	INVALID	INVALID	True

a = 2, b = 1, c = 1 (INVALID)	a = 2, b = 1, c = 1	INVALID	INVALID	True
Large Negative Values which are same (INVALID)	a = -2147483648, b = -2147483648, c = -2147483648	EQUILATORAL	INVALID	False
Negative Values (INVALID)	a=-2, b=-2, c=-2	EQUILATERAL	INVALID	False
Zero Values (INVALID)	a=0, b=0, c=0	EQUILATERAL	INVALID	False