**Submitted By:** Faizan

**Submitted To:** Prof. Mukhtiar Zamin

**Topic:** Test Cases for a triangle that can differentiate between isosceles, equilateral, and scalene

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| Test Case ID | Test Case Description | Input Data | Expected Outcome | Actual Outcome | Status |
| TC\_01 | Equilateral Triangle | Side lengths: 5, 5, 5 | True (Equilateral) |  |  |
| TC\_02 | Isosceles Triangle | Side lengths: 7, 7, 5 | True (Isosceles) |  |  |
| TC\_03 | Scalene Triangle | Side lengths: 3, 4, 5 | True (Scalene) |  |  |
| TC\_04 | Not a Triangle (Invalid) | Side lengths: 1, 2, 10 | False (Not a Triangle) |  |  |
| TC\_05 | Invalid Input (Negative Side Length) | Side lengths: -2, 3, 4 | False (Invalid Input) |  |  |
| TC\_06 | Invalid Input (Zero Side Length) | Side lengths: 0, 5, 5 | False (Invalid Input) |  |  |
| TC\_07 | Isosceles Triangle with Equilateral Properties | Side lengths: 4, 4, 4 | True (Isosceles) |  |  |
| TC\_08 | Right-angled Scalene Triangle | Side lengths: 3, 4, 5 | True (Scalene) |  |  |
| TC\_09 | Isosceles Triangle with Negative Side Length | Side lengths: 5, -5, 5 | False (Invalid Input) |  |  |
| TC\_10 | Isosceles Triangle with Zero Side Length | Side lengths: 0, 5, 5 | False (Invalid Input) |  |  |
| TC\_11 | Scalene Triangle with Large Side Lengths | Side lengths: 1000, 2000, 2500 | True (Scalene) |  |  |
| TC\_12 | Equilateral Triangle with Small Side Lengths | Side lengths: 0.1, 0.1, 0.1 | True (Equilateral) |  |  |
| TC\_13 | Invalid Input (Sum of Two Sides Less Than Third) | Side lengths: 1, 2, 4 | False (Not a Triangle) |  |  |
| TC\_14 | Invalid Input (Sum of Two Sides Equal to Third) | Side lengths: 3, 3, 6 | False (Not a Triangle) |  |  |
| TC\_15 | Invalid Input (Sum of Two Sides Greater Than Third) | Side lengths: 2, 3, 6 | False (Not a Triangle) |  |  |