# Test Plan – Triangle Times

Necessary cases to test will vary by problem.

As a starting point, write a test plan that looks for:

* the typical cases for the problem given
* the boundary conditions on all input values
* invalid inputs

Show the input sequence for a given case, and list the expected output.

| Test Cases | |
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| **Description** | **Given Input (in bold) and Expected Output** |
| Typical case(s)  Isosceles | Angle 1? **90**  Angle 2? **45**  Angle 3? **45**  Isosceles |
| Scalene | Angle 1? **120**  Angle 2? **40**  Angle 3? **20**  Scalene |
| Equilateral Triangle | Angle 1? **60**  Angle 2? **60**  Angle 3? **60**  Error |
| Boundary condition(s)   * Cannot have an angle of 0 | Angle 1? **90**  Angle 2? **45**  Angle 3? **0**  Error |
| * Cannot have a negative angle | Angle 1? **-90**  Angle 2? **45**  Angle 3? **45**  Error |
| * Cannot have a single angle greater than 178 | Angle 1? **179**  Angle 2? **45**  Angle 3? **45**  Error |
| * Sum of all angles cannot be greater than 180 | Angle 1? **1**  Angle 2? **2**  Angle 3? **178**  Error |
| * Sum of all angles cannot be less than 180 | Angle 1? **100**  Angle 2? **20**  Angle 3? **20**  Error |
| Invalid input(s)   * Must give an integer for any angle with no other characters besides numbers | Angle 1? **foo**  Angle 1? **45**  Angle 2? **45**  Angle 3? **90**  Isosceles |
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