# 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 | |
| --- | --- |
| **Description** | **Given Input (in bold) and Expected Output** |
| Typical case  Equilateral | Angle 1? **60** Angle 2? **60** Angle 3? **60** Equilateral |
| Typical case  Isosceles (first and second angles) | Angle 1? **50** Angle 2? **50** Angle 3? **80** Isosceles |
| Typical case  Isosceles (second and third angles) | Angle 1? **80** Angle 2? **50** Angle 3? **50** Isosceles |
| Typical case  Isosceles (first and third angles) | Angle 1? **50** Angle 2? **80** Angle 3? **50** Isosceles |
| Typical case  Scalene | Angle 1? **50** Angle 2? **60** Angle 3? **70** Scalene |
| Typical case  Invalid angles (sum too small) | Angle 1? **50** Angle 2? **80** Angle 3? **49** Error |
| Typical case  Invalid angles (sum too large) | Angle 1? **50** Angle 2? **80** Angle 3? **51** Error |
| Boundary condition  Angle is zero (one below minimum acceptable value) | Angle 1? **80** Angle 2? **0**  **Angle 2? 10** Angle 3? **90** Scalene |
| Boundary condition  Angle is 179 (one above maximum acceptable value) | Angle 1? **179**  Angle 1? 178Angle 2? **1**  **Angle 2? 1** Isosceles |
| Invalid input  Bad input, first prompt | Angle 1? **grapes** Angle 1? **100** Angle 2? **50** Angle 3? **30** Scalene |
| Invalid input  Bad input, second prompt | Angle 1? **50** Angle 2? **grapes** Angle 2? **100** Angle 3? **30** Scalene |
| Invalid input  Bad input, third prompt | Angle 1? **50** Angle 2? **30** Angle 3? **grapes** Angle 3? **100** Scalene |