# Guidelines for solving Oblique Triangles

<table>
<thead>
<tr>
<th>Type of Oblique Triangle</th>
<th>Suggested Procedure for Solving Triangle:</th>
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| **Case 1:** Given 2 angles & 1 side  
(SAA or ASA) | **Step 1:** Use the “angle sum formula” to find the remaining angle \(A + B + C = 180^\circ\)  
**Step 2:** Use the Law of Sines to find the remaining sides.  
**Step 3:** State answers clearly |
|  | **Use the Law of Sines.** |
| **Case 2:** Given 2 sides & 1 angle  
(SSA) – Ambiguous Case | **Be careful here – the ambiguous case can have 0, 1, or 2 triangles!**  
**Step 1:** Use the Law of Sines to find an unknown angle.  
(Which angle you find depends on the given information.) Find both options for this one angle.  
**Step 2:** For each angle option found above use the “angle sum formula” to find the remaining respective angle. \(A + B + C = 180^\circ\)  
**Step 3:** Determine whether you have 0, 1, or 2 triangles to solve.  
**Step 4:** Use the Law of Sines to find the remaining side(s).  
**Step 5:** State answers clearly |
| (*note – the given angle is not the angle between the two given sides) | **Use the Law of Sines.** |
| **Case 3:** Given 2 sides & 1 angle  
(SAS) | **Step 1:** Use the Law of Cosines to find the third side.  
**Step 2:** Use the Law of Sines to find the smaller of the two remaining angles.  
**Step 3:** Use the “angle sum formula” to find the remaining angle \(A + B + C = 180^\circ\)  
**Step 4:** State answers clearly |
| (*note – the given angle is the angle between the two given sides) | **Use the Law of Cosines.** |
| **Case 3:** Given 3 sides & 0 angles  
(SSS) | **Step 1:** Use the Law of Cosines to find the largest angle.  
**Step 2:** Use the Law of Sines to find either of the two remaining angles.  
**Step 3:** Use the “angle sum formula” to find the remaining angle \(A + B + C = 180^\circ\)  
**Step 4:** State answers clearly |
|  | **Use the Law of Cosines.** |