

Bonus Video

Law of Sines – The Ambiguous Case

The Law of Sines can be used to solve for sides and angles of oblique triangles. However, in some cases more than one triangle may satisfy the given conditions. We refer to this as an **ambiguous case**. A triangle classified as SSA, those in which you are given the length of two sides and the angle opposite to one of the given sides, may result in zero, one, or two solutions.

1. Given an oblique triangle with side lengths $a = 8$, $b = 7$, and angle $B = 40$, find angle A .
2. Given an oblique triangle with side lengths $a = 6$, $b = 7$, and angle $B = 40$, find angle A .
3. Given an oblique triangle with side lengths $a = 10$, $b = 7$, and angle $B = 40$, find angle A .