Trigonometry/Precalculus Name

The Ambiguous Case of the Law of Sines Date

Day \_\_\_\_\_\_ Block

The following triangles can be drawn 2 possible ways. Draw a sketch of both possibilities, then find the missing sides and angle measures for each pair of triangles.

1) m <A = 43ᵒ, c = 32 ft, a = 31 ft

BB

A C A C

2) m <C = 16ᵒ, b = 22 mi, c = 11 mi

3)

Screen Clipping

4) How can you determine whether or not it is possible for the given dimensions of a triangle to form two different triangles given only an angle and two sides (SSA)?

Use any method to show that forming a triangle with the following sets of angles and sides is not possible.

5) 6)

Screen Clipping

Screen Clipping

Review

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| 7) Find the measure of each missing angle.  A screenshot of a cell phone  Description automatically generated | 8)  A scientist working on nature preservation needs to calculate the length of a lake from one side to the point furthest across. Using the measurements she is able to make, find the length of the lake.  A close up of a map  Description automatically generated |