Lesson 7.3 Practice: The Ambiguous Case (SSA)

School Launch · Trigonometry · Unit 7: Oblique Triangles: The Laws of Sines and Cosines · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. In $\triangle ABC$, $A = 34°$, $b = 12$, $a = 5.4$. How many triangles are possible? EASY

2. In $\triangle ABC$, $A = 21°$, $b = 19$, $a = 12.9$. How many triangles are possible? EASY

3. In $\triangle ABC$, $A = 22°$, $b = 10$, $a = 6.9$. How many triangles are possible? EASY

4. In $\triangle ABC$, $A = 23°$, $b = 12$, $a = 8.3$. How many triangles are possible? MEDIUM

5. In $\triangle ABC$, $A = 28°$, $b = 21$, $a = 7.9$. How many triangles are possible? MEDIUM

6. In $\triangle ABC$, $A = 21°$, $b = 30$, $a = 20.4$. How many triangles are possible? MEDIUM

7. In $\triangle ABC$, $A = 61°$, $b = 25$, $a = 23.4$. How many triangles are possible? MEDIUM

8. In $\triangle ABC$, $A = 69°$, $b = 21$, $a = 20.3$. How many triangles are possible? HARD

9. In $\triangle ABC$, $A = 49°$, $b = 10$, $a = 12$. How many triangles are possible? HARD

10. In $\triangle ABC$, $A = 57°$, $b = 14$, $a = 9.4$. How many triangles are possible? HARD