

Chapter 3- Acute Triangle Trigonometry
3.2 Applying the Sine Law

GOAL: Use the Sine law to solve triangles.

John wants to measure the height of a slanted tree. He walks exactly 100 feet from the base of the tree and looks up. The angle from the ground to the top of the tree is 33° . This particular tree grows at an angle of 83° with respect to the ground rather than vertically . How tall is the tree?

Brooklyn and Isaac are having a "friendly discussion" in Foundations class. Brooklyn is 4.2 m away from Isaac. Tyler speaks up and tells them to stop arguing. Tyler is 2.85 m away from Brooklyn and 3.3 m away from Isaac. Chloe notices that this would make a wonderful Sine Law question and, using her magical protractor, measures the angle located at Tyler to find that it is 86° . Derek says that he has solved the other two angles and that they are 40° and 54° . Mason shouts at Derek and tells him that he is wrong. Find out who is right and make any corrections needed.