

§ 5.6 The Law of Sines Exit Ticket

A couple of hikers are taking a well deserved rest at the top of a mountain. One hiker looks at a distance and sees a lake that is 3km away. He turns his head 35° and sees another mountain which his girlfriend tells him is 3.5 km from the lake. How far are the hikers from the next mountain?

In a classic scene from the movie, "*The Good, the Bad & the Ugly*", the climax of the movie finds the three main characters, "the Man with No Name", played by Clint Eastwood, Tuco and Sentenza, in a duel. Clint Eastwood is 25 yards from his leftmost enemy Tuco and his eyes need only span 65° to the right to see his rightmost enemy Sentenza. If Tuco needs to span his eyes 71° in order to see both his enemies, how far is each enemy from each other?