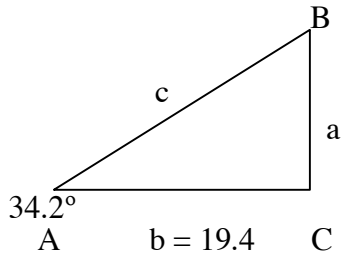


§4.8 Applications and Models

Example 1 Solving a right triangle. Find all angles and sides of the following right triangle.



Example 2 A safety regulation states that the maximum angle of elevation for a rescue ladder is 72° . A fire department's longest ladder is 110 feet. What is the maximum safe rescue height?

Example 3 At a point 200 feet from the base of a building, the angle of elevation to the bottom of a smokestack is 35° , whereas the angle of elevation to the top is 53° , as shown in the figure 4.78 page 333. Find the height s of the smoke stack alone.