13.1/13.2 Word Problems Classwork

Draw a picture and solve. Show all work.
Round side lengths the nearest hundredth and angles to the nearest degree.

1.   A ladder needs to reach the second story window, which is 10 feet above the ground, and makes an angle with the ground of 70°. How far out from the building does the base of the ladder need to be positioned?

2.   A five-meter-long ladder leans against a wall, with the top of the ladder being four meters above the ground. What is the approximate angle of elevation that the ladder makes with the ground?

3.   A new regulation states that the maximum angle of a ramp for wheelchairs is 8°. At least how long must the ramp be if it needs to reach the door that is 2.3 feet above the ground.