Advanced Math
Apps of Trig Notes

1. An advertising company needs to figure out the height of a billboard sitting on top of a building. Lisa determines that the angle of elevation to the roof of the building is 28°. She also determines that the angle of elevation to the top of the billboard is 35°. If she is standing 150 feet from the base of the building, find the height of the billboard.

2. Kyle is trying to determine the height of an apartment building that he spots in the distance. He determines that the angle of elevation to the top of the building is 42°. He then moves 16 feet closer and determines that the angle of elevation is now 48°. How high is the apartment building?
3. Angelina, who works for Verizon Wireless, needs to determine the height of a cellular tower. She measures the angle of elevation to the top of the tower and finds that it’s 21°. After noting her measurement in her notebook, she moves 170 feet closer and finds that the angle of elevation is now 29°. How high is the cellular tower?