

Name:

Date:

Period:

HW #9-8

1. The captain of a boat knows that the light from a lighthouse on the cliff of a coast is 100 feet above the water. The captain measures the angle of elevation to the lighthouse to be 2° . How far is the boat from the coast?
2. A forest ranger is looking out from his station and can see a forest fire at an angle of depression of 35° . The ranger's position is 100 feet above the ground. How far is the ranger from the fire?
3. Two office buildings are 51m apart. The height of the taller building is 207m. The angle of depression from the top of the taller building to the top of the shorter building is 15° . Find the height of the shorter building.
4. A meteorologist measures an angle of elevation to a weather balloon to be 41° . A radio signal from the balloon indicates that it is 1503m from her location. How high is the weather balloon above the ground?