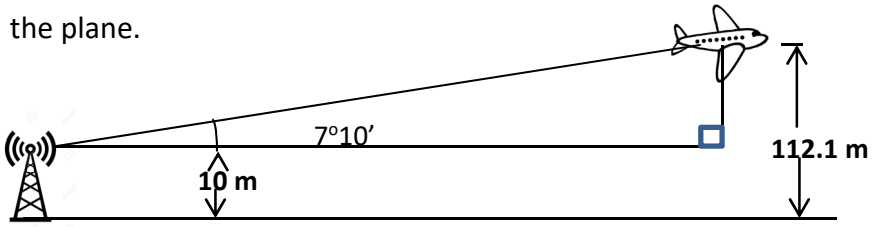
AA2 Wk 17 Tuesday Warmup Name_____

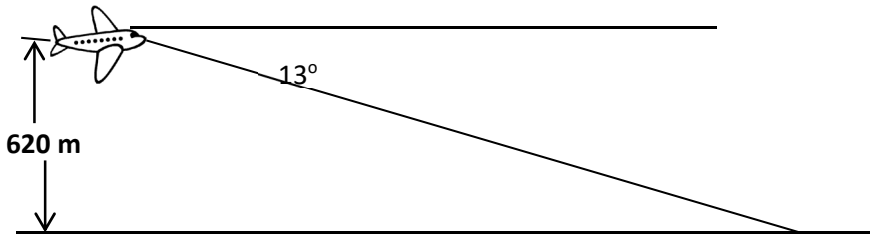
SHOW ALL WORK

Make a sketch and solve each of the following.

1. The angle of elevation from a radar antenna to an airplane is $5°50'$. The antenna is 10 m above the ground. The altitude of the plane is 112.2 m. Find the line of sight distance, RP, from the antenna to the plane.



2. An angle of depression of the closest point on the ground that is visible over the nose of an airplane is called the cockpit cutoff angle. For a certain plane flying level at an altitude of 620 meters, the cockpit cutoff angle is 13°. Find the line of sight distance from the pilot to the closest visible point on the ground.



3. From the deck of a boat, the angle of elevation of the top of an offshore oil rig is found to be 31°30'. The top of the oil rig is 127 meters above the level of the platform on which it stands. Assume that the head of the person doing the sighting is level with the base of the oil rig. What is the distance between the base of the oil rig and the boat?