

Right Triangle Trigonometry Problems

1. A person that is 1.5 meters tall stands 200 meters away from the Empire State Building and measures the angle of elevation (from their height) to the top of the building to be 65.6° . How tall is the building?
2. Bob wants to attach a guy-wire to the top of a 300 foot tower. In order to have an angle of 30° with the ground, how long must the wire be?
3. You want to measure the height of a tree. The angle of elevation (from the ground) is 55° . You walk 60 feet directly away from the tree and find that the angle of elevation is now 45° . How tall is the tree?