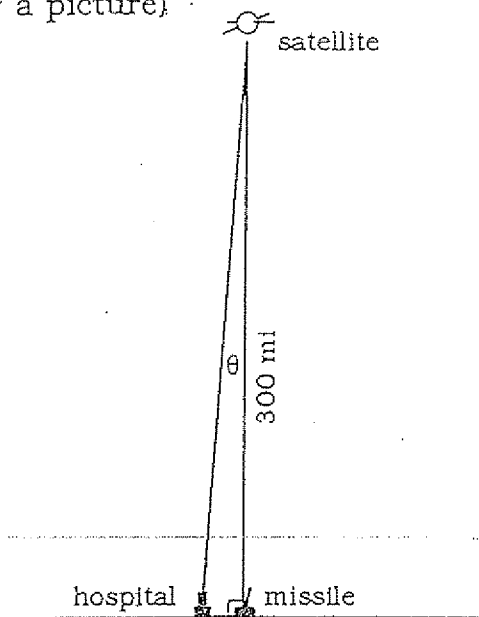


8. A photographer wishes to take a picture of a bird in a tree. She is 15 feet from the base of the tree and is shooting at a 50° angle of elevation. How far is the camera from the bird? (Hint: draw a picture)

9. A spy satellite 300 miles above earth spots a mobile missile launcher directly below. At an angle of 0.095° (θ), the satellite also sees a hospital. What is the distance between the missile launcher and the hospital? Hint: $\tan 0.095^\circ \approx 0.001658$.



10. Consider location A and B on the surface of the earth, approximately 2085 miles apart. The angle of elevation to the moon from location A is $\theta = 89.5^\circ$.

Assuming that the moon is directly over location B, find the distance between the earth and the moon. Hint: $\tan 89.5^\circ \approx 114.6$.

