Name\_

Unit 9 day 4 notes

How do you find the measure of an angle?







1. Find Sin A and Sin B





2.

Find Cos A and Cos B



Angle of Elevation:When you look up at an object, the angle that your line of<br/>sight makes with a line drawn horizontally.

Angle of Depression: When you look down at an object, the angle that your line of sight makes with a line drawn horizontally.









5. A lifeguard is watching a beach from a line of sight 6 feet above the ground. He sees a swimmer at angle of depression of  $8^{\circ}$ . How far away from the tower is the swimmer?

6. A dog is looking at a squirrel at the top of a tree. The distance between the two animals is 55 feet and the angle of elevation is 64°. How high is the squirrel and how far is the dog from the base of the tree?



7. A jet is flying at an altitude of 30,000 feet. An air traffic controller measures the angle of elevation to the plane to be  $16.5^{\circ}$ . Find the horizontal distance of the plane from the airport.

8. At a point on the ground 50 feet from the foot of a tree, the angle of elevation to the top of the tree is 53°. Find the height of the tree.

From the top a lighthouse 210 feet high, the angle of depression to a boat is
27°. Find the distance from the boat to the foot of the lighthouse. The lighthouse was built at sea level.