Geometry   Name: _____

REVIEW: Angle of Elevation & Depression
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1. Brian's kite is flying above a field at the end of 65 m of string. If the angle of elevation to the kite measures 70°, how high is the kite above Brian's head?

2. From an airplane at an altitude of 1200 m, the angle of depression to a rock on the ground measures 28°. Find the distance from the plane to the rock.

3. From a point on the ground 12 ft from the base of a flagpole, the angle of elevation of the top of the pole measures 53°. How tall is the flagpole?

4. From a plane flying due east at 265 m above sea level, the angles of depression of two ships sailing due east measure 35° and 25 °. How far apart are the ships?

5. Tom and Sam are on the opposite sides of a tower of 160 meters height. They measure the angle of elevation of the top of the tower as 40° and 55° respectively. Find the distance between Tom and Sam.

6. A man on the deck of a ship is 13 ft above water level. He observes that the angle of elevation of the top of a cliff is 40° and the angle of depression of the base is 20°. Find the distance of the cliff from the ship and the height of the cliff if the base of the cliff is at sea level.

7. The angle of elevation of the top of a cliff from the point Q on the ground is 30°. On moving a distance of 20 m towards the foot of the cliff the angle of elevation increases to x^o. If the height of the cliff is 17.3 m, then find x^o.

8. From the top of a spire of height 50 ft, the angles of depression of two cars on a straight road at the same level as that of the base of the spire and on the same side of it are 25° and 40°. Calculate the the distance between the two cars.