## Geometry Homework – 8-3 and 8-4



10) A right triangle has a hypotenuse of length 10 and one leg of length 5. Find the length of the other leg and the measures of the acute angles in the triangle. Round your answers to the nearest tenth

11) The lengths of the diagonals of a rhombus are 5 in. and 8 in. Find the measures of the four corner angles of the rhombus to the nearest degree.

## Find the values of w and then x. Round lengths to the nearest tenth and angle measures to the nearest degree.

13)



12)



14) An eagle perched 40 ft up in a tree looks down at an angle of depression of 35° and spots a mole. If the eagle flies directly to the mole, how far would it travel? Round to the nearest tenth of a foot?

15) An airplane is flying at an altitude (vertical distance) of 10,000 ft (1.9 mi). The airport at which it is scheduled to land is 50 mi away (horizontal distance). Find the angle of depression at which the airplane must descend for landing. Round your answer to the nearest degree.

16) A lake measures 600 ft across. A lodge stands on one shore. From your point on the opposite shore, the angle of elevation to the top of the lodge is 4°. How tall is the lodge? Round your answer to the nearest foot.

17) A library needs to build an access ramp for wheelchairs. The main entrance to the library is 6 ft above sidewalk level. If the architect designs the slope of the ramp in such a way that the angle of elevation is 8°, how long must the access ramp be? Round your answer to the nearest foot.