## SECTION 3.5 HINT

5. Differentiating the equation implicitly with respect to x to compute  $\frac{dy}{dx}$ 

25-30. Differentiating the equation implicitly with respect to x to compute  $\frac{dy}{dx}$ , Take the point into the equation to know the slope, then you can write down the equation of tangent line.

59. Do as exercise 25-30 to find the slope of tangent line, and prove the families of curves are orthogonal trajectories of each other.

63. Take y = 0 into this equation to find these points. Find those equations of the tangent lines to see if they are parallel.

69. Assume h is the height of the lamp, and (a, b) is the intersection point. Take them into equations to solve a, b, h.