

**MA 341 Homework #7**  
Due Wednesday, November 5 in Class

1. Handout on More Trigonometric Identities
  - (a) Problem 1.
  - (b) Problem 2.
  - (c) Problem 3.
  - (d) Problem 7.
  - (e) Problem 8.
  - (f) Problem 9.
  - (g) Problem 10.
  
2. Given the line  $\ell$  described by  $ax + by + c = 0$ , and the point  $P(x_0, y_0)$ , derive a formula, with justification, for the point  $Q$ , such that  $\ell$  is the perpendicular bisector of the segment  $\overline{PQ}$ . Suggestion: Consider the line  $m$  through  $P$  that is perpendicular to  $\ell$ , and express  $m$  in parametric form.