

Problem Set 2  
Due Friday, October 12.

*Algebra*

Math 110A, Fall Quarter 2012

1. Do problems 1.3.9, 1.3.11, 1.3.25 in the textbook.
2. Do problems 2.1.2, 2.1.10, 2.1.14, 2.1.21 in the textbook.
3. Show that the congruence  $x^2 \equiv 35 \pmod{100}$  has no solution. (Hint: if  $x^2 \equiv 35 \pmod{100}$ , then  $x^2 \equiv 5 \pmod{10}$ .)