

## Homework 4: Math 953 Spring 2005

Due February 14, 2005

(1) Do problem 1.8 on p. 66 of the text. Also give an example showing that  $\Gamma(U, \cdot)$  need not be right exact [consider using an example from class].

(2) Do problem 1.16 on p. 67 of the text. [For part (b), you'll need to use a Zorn's Lemma argument. If you're not familiar with that, or just as a simplifying assumption, you may assume  $X$  is Noetherian (see p. 5, which implies that any union of open sets is equal to a union of a finite subset of the open sets).]