Math 300.2 **Problem Set 2** **Fall, 2007**

Due: Thursday, September 20, start of class

Problems 4 and 5, originally listed as "maybe" are now definitely included.

1. Do Exercise A.2.5 (4) first part [about $A \times (B \cup C)$].

2. Do Exercise A.3.2 (4).

3. Do Exercise A.3.3 (3). Be sure you use *only* the properties provided by the definition of "total ordering". That is, don't assume any additional properties—unless you can deduce them from the properties in the definition (and possibly the associated properties of $<$ listed on page A17).

4. Do Exercise B.1.7 (5).

5. Do Exercise B.1.7 (6) (a).