Clarification for Homework 5

Math 461, Fall 2006

Here are a few comments that should (hopefully) clarify the book's questions.

4.3, #9. In the more standard notation from class, the question can be rephrased as follows: Let f be a function from (X, τ) to (Y, τ'). Prove that f is continuous if and only if

$$\overline{f(A)} \supset f(\overline{A}),$$

for any set $A \subset X$.

4.4, #3. Clearly, our book was written back when the author didn't have any female students. These days, he might have said something like, *"Because the reader has already encountered a few topological properties in the context of an analysis class, she can likely make an educated guess about..."*