

MATH 348 Reading Questions

Sections 3.4–4.1

_____ NAME

Read from the beginning of Section 3.4 through page 3.9 in the textbook. Answer the following questions. This sheet will be checked for completeness at the beginning of the next class.

1. What is the definition of a *basis* for a topology?
2. In Example 3.45, why does it suffice to consider open intervals (a, b) ?
3. According to the *Interlude*, most of the tools that we use in studying topology can be grouped into what two categories?
4. What is a *topological invariant*?
5. Rephrase Theorem 4.1 in your own words, avoiding jargon or symbols that you don't understand.
6. What is the definition of a *disconnected* topological space?