

Rather than simply marking the importance of an entire section, I will start trying to provide a little more direction to your reading. Read the listed subsections and Theorems carefully. Read the proofs of the Theorems less carefully. Read as many Examples as are helpful to your understanding.

The exercises in this chapter strike me as more challenging than usual. The following website has sketches of some proofs that should be useful reading.

<http://www.math.bme.hu/~sszabo/Topology/MunkresCh2.html>

- Section 17 - Closed Sets and Limit Points
 - Closed Sets and Theorem 17.1
 - You may skip the theorems about subspaces
 - Closure and Interior of a Set and Theorem 17.5 (you may skip the Theorem 17.4 about subspaces)
 - Read the discussion of neighborhoods following Theorem 17.5
 - Limit Points, Theorem 17.6, and Corollary 17.7
 - Everything in Hausdorff Spaces except Theorem 17.11 (Hausdorff spaces are an extremely important class of spaces, as the author explains)
- Section 18 - Continuous Functions
 - Continuity of a Function and Theorem 18.1
 - Homeomorphism
 - Glance at the remaining Theorems and Examples, but don't bother with their proofs. Many of these results will be familiar from Calculus.
- Exercises: p. 111, # 1, 3, 5, 9