

Math 227A: Problem Set 2 and Further Suggested Exercises for Week 4

The following exercises comprise Problem Set 2, and are due on April 29:

1. Hatcher 4.2.32, 4.2.36, 4.3.8, 4.3.13.

The following are suggested exercises for Week 4:

1. Hatcher 4.2.31, 4.2.33, 4.3.9, 4.3.10, 4.3.12.
2. Prove that if X is compact and Y is a metric space, the compact-open topology on $\text{MAP}(X, Y)$ is the same as the topology defined by the sup metric

$$d(f, g) = \sup_{x \in X} d(f(x), g(x))$$