Math 8061 Homework 2

Due Thursday, 9/9/21

1. Let M be a topological manifold. Recall that two smooth atlases, $\mathcal{A}$ and $\mathcal{B}$, are called equivalent if $\mathcal{A} \cup \mathcal{B}$ is a smooth atlas. Prove that this is indeed an equivalence relation.

2. Do Problem 1-7 on in Chapter 1.

3. Do Problem 1-8 in Chapter 1.