

Math 8061 Homework 3

Due Wednesday, 9/27/23

1. Problem 3-1 in Lee.
2. Problem 3-2 in Lee.
3. Let M be a smooth manifold. Let $f: M \rightarrow \mathbb{R}$ be a positive continuous function. Use a partition of unity to construct a smooth function $g: M \rightarrow \mathbb{R}$ such that $0 < g(x) < f(x)$ for all x .