
Homework 2
Due: Friday, September 2

1. [F] 1.3.1
2. [F] 1.3.6
3. [F] 1.3.8
4. Suppose $\vec{f} : \mathbb{R}^n \rightarrow \mathbb{R}^m$ is continuous, and suppose that suppose $U \subset \mathbb{R}^m$ is open. Show that

$$\{\vec{x} \in \mathbb{R}^n : f(\vec{x}) \in U\}$$

is an open subset of \mathbb{R}^n .