

1 The First Section

Definition 1.1 (Continuity). $f: A \rightarrow B$ is continuous if for all $U \subseteq B$,

$$U \text{ is open in } B \implies f^{-1}(U) \text{ is open in } A.$$

PROBLEM. 1.2

Let $A \subseteq \mathbf{R}$. Show that f is continuous at a if and only if

$$(\forall \epsilon > 0)(\exists \delta > 0)(\forall x \in A)$$

Notice here \theexer

2 The Second S

Lemma 2.1 (Handshaking

A Solutions to Exercises

The solution to exercise 2.2 is the following.

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