

Variant of book's ER 2.3.11

Let A and B be nonempty bounded subsets of \mathbb{R} and

$$A \subseteq B.$$

1. Prove that

$$\sup A \leq \sup B. \tag{1}$$

2. Prove that

$$\inf B \leq \inf A. \tag{2}$$

3. Prove that

$$\inf B \leq \inf A \leq \sup A \leq \sup B. \tag{3}$$

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