MAT 215: PROBLEM SET 6

Reading: Abbot, Sections 4.5, 5.2-5.3

Problem 1: Prove that the function $f(x) = x^p$ is continuous on $[0, \infty)$ for $p > 0$.

Problem 2: Suppose that $f \colon [0, 1] \to [0, 1]$ is strictly increasing and surjective. Prove that f is continuous.

Abbot exercises: 4.2.7, 4.2.10, 4.3.6, 4.3.11, 4.4.5, 4.4.7, 4.4.8.