HOMEWORK 7

Exercise 1. Solve exercises 17.2, 17.10, 17.11, 17.12, 17.13, and 17.14 from the textbook.

Exercise 2. Solve exercises 18.4, 18.5a), 18.8, 18.9, and 18.12 from the textbook.

Exercise 3. Let $a, b \in \mathbb{R}$ with $a < b$ and let $f, g : [a, b] \to [a, b]$ be two continuous functions such that $f \circ g = g \circ f$. Show that there exists $x_0 \in [a, b]$ such that $f(x_0) = g(x_0)$.