MATH250: FOUNDATIONS OF MATHEMATICS
SPRING 2020

Homework 5: due Wednesday, March 4.

- Section 3.1: 5, 10, 11, 16, 20.

Additional problems:

(1) Let $f : A \to B$ be a function. Let $W \subseteq A$ and $X \subseteq B$. Prove or disprove the following
   (a) $W \subseteq f^{-1}(f(W))$
   (b) $f^{-1}(f(W)) \subseteq W$
   (c) $X \subseteq f(f^{-1}(X))$
   (d) $f(f^{-1}(X)) \subseteq X$