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HOMEWORK 5
Due: Monday May 14

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READING ASSIGNMENT: 5.1, 5.2
PROBLEMS FROM THE NOTES: 5.1.1, 5.2.1(c,d), 5.2.2, 5.2.4, 5.2.7
ADDITIONAL PROBLEMS:

Problem 1: Prove that if A and B are sets, then: there is an injection $f : A \to B$ if and only if there is a surjection $g : B \to A$.

Problem 2: Prove that if $f : A \to B$ is a one-to-one function then the relation f^{-1} is a function on $\text{dom}(f^{-1})$. Suppose f in onto but not one-to-one. What can you conclude about f^{-1}?