Exercises for Chapter 3.1

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1 Exercise 3.1.11

Prove that the axiom of replacement implies the axiom of specification. In other words,

$$(z \in \{y : P(x,y)\} \iff y) \implies (y \in \{x \in A : P(x)\} \iff y \in A \, and \, P(y)) \tag{1}$$

Proof: