In this talk, I give three examples of axiomatizing reasoning about sets in special purpose languages. First, I consider reasoning about comparative cardinality: \( A \succeq B \) if there is an injection from \( B \) to \( A \). I add principles to Boolean algebra to axiomatize reasoning not only about Boolean operations but also about \( \succeq \). Second, I consider reasoning about the subset relation ("set-theoretic mereology") in a modal language: \( \Diamond \varphi \) is true at a set \( A \) if there is a nonempty \( B \subseteq A \) such that \( \varphi \) is true at \( B \). I discuss the longstanding open problem of giving a recursive axiomatization of the set of validities for finite sets. Finally, I give an example outside of pure mathematics from voting theory: a set \( A \) of voters is decisive over candidates \( x, y \) if whenever all voters in \( A \) prefer \( x \) to \( y \), society must rank \( x \) above \( y \). I present an axiomatization of reasoning about decisive sets of voters for voting methods satisfying well-known axioms. These examples are meant to illustrate a methodology familiar to modal logicians: to better understand the core principles governing some mathematical concept, try to axiomatize the validities of a lean language with dedicated operators whose semantics is given by the target concepts. (Received September 16, 2019)