

Math 89
Winter 2006

Additional Homework Problem from Tuesday, January 17, 2006

(A.) Show that the collection of all singletons is not a set. (A singleton is a set with exactly one element.) Hint: Show that if there were such a set, then there would be a set of all sets.

(B.) Clearly, a set is a singleton if and only if it has the same size as the set 1. This means part A shows that the “equivalence class” of 1, namely the collection of all sets X such that $|X| = |1|$, is not a set. Give as complete an answer as you can to the question:

For what sets A is the “equivalence class” of A a set?