Exam 1.

No cooperation. The solutions are due Wednesday Sep. 24 before class.

1. Give an example of a class which is not a set, and prove that in fact it is not a set.

2. Using the Tarski definition of finiteness, show that the product of two finite sets is finite.

3. Without the use of the axiom of choice, show that every finite set of nonempty sets has a selector.

4. If x is a set of nonempty sets, write $\prod x$ for the collection of all selector functions on x. Show that $\prod x$ is a set.

5. Let C be a nonempty class. Show that $\bigcap C$, the intersection of all sets in C, is a set.