**FORCING HINTS**
**DAY 7**

**Hint 1.** *For the (first) Lowenheim-Skolem theorem, Itay suggested that you prove the following:*

*Let $X \subseteq U$ be infinite sets, and let $f\colon U^{<\omega} \to U$ be a function. ($U^{<\omega}$ is the set of finite subsets of $U$.) Prove that there is $Y \subseteq U$ so that $X \subseteq Y$, $|Y| = |X| \cdot \aleph_0$, and $Y$ is closed under $f$, meaning that $f''Y^{<\omega} \subseteq Y$.*

The ideas from proving this fact appear in the proof of the Lowenheim-Skolem theorem.