1. How do you prove:

- The theory of groups is finitely axiomatized.
- The class of infinite groups is \( EC_\Delta \).
- The class of infinite groups is not \( EC \).
- The class of finite groups is not \( EC \).
- The class of finite groups is not \( EC_\Delta \).

\( \Gamma \) - axioms for group

\( \Gamma \cup \{ \text{AtLeast1}\} \) - shows the infinite groups are an \( EC_\Delta \)

Suppose \( \Gamma \) is a set of sentences, set. \( \text{Mod} \Gamma = \text{class of finite groups} \)
So \( \Gamma \) has arbitrarily large finite models.
By 1st theorem of today, \( \Gamma \) has an infinite model. \( \#\)