Math Logic
Homework #6 (Chapter 12)

1. Prove that every satisfiable set is OK.

2. Prove that if S is a subset of T, then if T is OK, so is S.

3. Let Δ be any OK set of sentences of some language L. Prove that there is a maximal OK set of sentences (of L) of which Δ is a subset. A maximal set of sentences in some language, L, is a set of sentences of L such that for sentence, S, in L, either S or ~S is a member of the set. (Hint: use the proof of Lemma 3.)