1. Show that PSPACE is closed under union, complementation, and star.

2. Show that NL is closed under union and intersection.

3. Show that all PSPACE-hard languages are also NP-hard.

4. Show that $A_{DFA} \in L$.

THIS IS THE LAST SET OF EXERCISE QUESTIONS.
THE EXAM IS HELD ON MONDAY, DECEMBER 10, 2012.