

Handout 14: Homework 6

*Instructor: Susan Hohenberger**TA: Omar Zaidan*

This assignment is due by the start of lecture on Wednesday, November 28.

1. **(3 points)** (Sipser 8.10) [go-moku in PSPACE]
(Think about on your own: What if we had only considered a 19 x 19 grid?)
2. **(2 points)** Languages in L :
 - (a) **(1 point)** (Sipser 8.17) [nested parentheses]
 - (b) **(1 point)** (Sipser 8.22a) [ADD in L]
3. **(3 points)** (Sipser 8.30) [E_{DFA} is NL-complete]
4. **(2 points)** (Sipser 9.19) [USAT in P^{SAT}]
5. **(2 points)** (Sipser 9.22) [tale of two oracles]
6. **(3 points)** (Sipser 10.20) [The class ZPP]