Problem Set 5

Please turn in each problem on a separate page with your name.

1. Book, 7.24 .   [$\neq SAT$ is NP–complete]

2. Book, 7.25 .   [MAX–CUT is NP–complete]

3. Book, 8.15 .   [$HAPPY$–$CAT \in$ P]

4. Book, 8.10 .   [go-moku is in PSPACE]

5. Book, 8.8 .   [$EQ_{\text{REX}} \in$ PSPACE]
   (Hint: you'll need one or more of the theorems we've proved)

6. Book, 8.13 .   [A_{LBA} is PSPACE–complete]

7.* Book, 7.35 .   [NP–complete DFA construction problem]