

Problem Set 6

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

1. Book, 8.22 . [*ADD* and *PAL-ADD* are in L]
2. Book, 8.27 . [*STRONGLY-CONNECTED* is NL-complete]
3. Book, 9.19 . [$USAT \in P^{SAT}$]
4. Book, 9.17 . [P contains a language not decidable by a 2DFA]
5. Book, 10.21 . [EQ_{BP} is coNP-complete]
6. Book, 10.20 . [$RP \cap coRP = ZPP$]
- 7* Book, 10.19 . [if $NP \subseteq BPP$ then $NP = RP$]

Note: The **Final Exam** will be held December 18, 2006 (Monday) 9am–12noon.