1. 7.38 (7.36 in second edition, about SAT)

2. Let

\[ \text{DOUBLE-SAT} = \{ \langle \phi \rangle : \text{\phi is a boolean formula that has at least two satisfying assignments} \}. \]

Show that \text{DOUBLE-SAT} is NP-complete.

3. 7.26 (7.24 in second edition, about \( \neq \text{SAT} \))

4. 7.29 (7.27 in second edition, about 3COLOR) (Optional hint: do not follow the hint in the book and show \( \neq \text{SAT} \leq_\text{P} 3\text{COLOR} \), where \( \neq \text{SAT} \) is from problem 3)