

Recitation 10: NP- completeness

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**Problem 1:** Review: 1. Cook-Levin theorem 2. NP-complete problems

**Problem 2:** Sipser 7.37 If  $P = NP$  you can factor integers in poly time.

**Problem 3:** Sipser 7.30 (Minesweeper) Show that the Minesweeper language is NP-complete.

**Problem 4:** Sipser 7.37. Show that 3COLOR is NP-complete.