

Handout 1: Problem Set 5

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Due by Friday, Dec 23th, 8pm.

Problem 1 Prove that the class of context-free language is not closed under shuffle.

Problem 2 Prove that the class of regular sets is closed under inverse substitution.

Problem 3 Let $L = \{a^i b^i c^j \mid i < j\}$. Is L a context-free language? Give a proof of your answer.