

Today: Mapping reducibility. § 5.3.

Next class: Catch-up, review.

Reminders: *Midterm Exam 3*. Homework. Reading. Newsgroup.

1. List the members of your group below. Underline your name.

2. Prove or disprove each, for languages A and B :

(a) If $A \leq_m B$ and B is decidable then A is decidable.

(b) If $A \leq_m B$ and A is decidable then B is decidable.

3. Prove or disprove each, for languages A and B :
 - (a) If $A \leq_m B$ and A is regular then B is regular.
 - (b) If $A \leq_m B$ and B is regular then A is regular.

4. Provide precise definitions of the following languages.
 - (a) Equivalent CFGs.
 - (b) Non-equivalent CFGs.

5. Prove or disprove the (1) decidability and (2) recognizability of each language in Question 4.