

Homework 7 (Reducibility and Decidability)

Due Friday, April 27, 07 at 3:00 PM in Class

Note: I may not grade all assignments and I may grade only selected problems from the assignment I grade.

- (1) Prove that all Turing-recognizable languages are mapping reducible to A_{TM} . You have to mention the reduction function and to prove it's a reduction.
- (2) Give an example of an undecidable language B such that $B \leq_m \overline{B}$. Give full explanation and show all details. Also, if your language was not shown in class to be undecidable, then you'll have to prove it's undecidable. You have also to mention the reduction function and to prove it's a reduction.

Note: Next homework is on complexity classes.