

# CSI 350 — Theory of Computation, Fall 2005

Handout #6 - Monday, November 28, 2005

1. HW #5 (four problems) due Monday (12/5) at the start of class.
2. **Homework (#5)**
  - (a) Explain reducibility.
  - (b) Show that  $REGULAR_{TM}$  is undecidable.
  - (c) When A reduces to B:
    - i. If B is decidable, what does this tell us about A?
    - ii. If B is undecidable, what does this tell us about A?
    - iii. If A is decidable, what does this tell us about B?
    - iv. If A is undecidable, what does this tell us about B?
  - (d) Explain the difference between P and NP.