

Slide 1

Administrivia

- Reminder: Homework 2 due next Tuesday.

Slide 2

Minute Essay From Last Lecture

- Most people found most problems not too difficult. Exception was last to-turn-in problem.
- One person came up with some alternate ways of writing the “can’t fool all the people” formula. How to tell if they’re equivalent? “Negation” rule can help.
- Another asked about proving the “hs” rule.

Predicate Logic — Review/Recap

Slide 3

- Adding quantifiers allows us to express things we couldn't in predicate logic.
- Analogous to propositional-logic notion of tautology (statement true for all assignments of values to statement letters) is valid formula (statement true in all interpretations). Validity *must* be proved using derivation rules, which include propositional-logic rules plus rules for removing and adding quantifiers.
- Like propositional logic, both sound (another term for what textbook calls *correct*) and complete. Worth noting that more complicated logics are possible, and some of them are sound but not complete(!).

More Examples

Slide 4

- (More examples at board — section 1.4 problems 21, 26, 31, 33.)

Minute Essay

- None — quiz.

Slide 5