

## Math 2001: Homework W2

Due September 25, 2009

The following assignment will be graded with an emphasis on clarity of exposition. You should write in complete sentences, be as precise as possible, and be mathematically correct (both in content and format). Be sure to include a title, a short introduction to the topic, and to define all the relevant mathematical terms. The assignment should be **typed**.

Explain how many steps it takes to solve the Tower of Hanoi problem for  $n$  discs and 3 pegs. You should include (at the very least),

- (a) An introduction
- (b) A description of the puzzle.
- (c) A main result stated as a theorem.
- (d) A proof of the Theorem.
- (e) Precise arguments for all your assertions.