

**MA310**  
**Homework #1**  
**Due Tuesday, January 23**  
**Revision due Tuesday, January 30**

The solutions to the following problems should be typed, using proper English (and mathematics!), and clear enough for someone who is not in this class, and has not had the benefit of the classroom discussion, to follow.

1. Give an explanation of why playing game #1 of Section 1 is the “same” as playing tic-tac-toe.
2. Explain who can win game #2 of Section 2 and why. Your explanation should be general enough so that it applies to any number of starting piles, each with any number of stones.
3. Explain who can win game #10 of Section 2. Your explanation should be general enough so that it applies to two piles with any equal numbers stones.