Tutorial 1
13/2/95

1. Consider the following game played on an $m \times n$ grid. Player I removes the first k rows or columns (but not all of them). Player II then removes the first l of the remaining rows or columns. Play continues until one player (the loser) is forced to remove the last row or column. Who has a winning strategy? Formulate a conjecture and prove it.

2. Consider a round-robin tounament with t teams (everybody plays everybody else). In this tournament there are no ties, each match has a winner and a loser. Prove that there is a way of listing the teams such that the first team in the list beat the second team, the second team beat the third team, the third beat the fourth, etc.