Math Challenge Problem
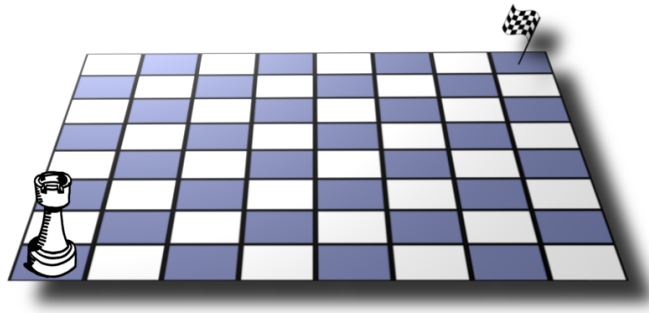
for March 2013

Longest Rook Path

A rook is placed on the bottom left corner of a standard 8×8 chess board. As you know, rooks can only move horizontally and vertically. The rook would like to travel to the opposite corner of the board. The shortest such path takes 15 squares (including the starting square). What about the other extreme?

The Challenge: What is the longest path the rook can take between opposite corners without visiting any square more than once or leaving the board? Prove your answer.

Submit solutions to Ross 2239G or to oscar.levin@unco.edu by *Monday, April 1*.

The best solution will be posted on the Math Challenge Problem webpage, and the submitter will receive a *PRIZE!*.

At the end of the semester, all submitters of correct solutions to challenge problems will be entered into a drawing for a *BIG PRIZE*.