Roman Wong* (rwong@washjeff.edu), Mathematics Department, Washington and Jefferson College, Washington, PA 15301, and Shunika Hamilton (hamiltonss@washjeff.edu) and Sarah Charley (Charleysr@washjeff.edu). The Alarm-Off puzzle.

A security system consists of a row of n switches that can be toggled on or off one at a time governed by the following rules: (1) Switch 1 can be toggled at any time. (2) To toggle switch k, switch k-1 must be on and switches i must be off for all i<k-1, if any. The switches are all on at the start. The puzzle is to determine the minimum number of toggles needed to turn off all the switches. This one-dimensional puzzle is then extended to two dimensions with rectangular and triangular configurations. (Received September 09, 2008)