# SPS Problem of the Week 02/07 - 02/14

## Problem:

In a town there are $n$ people and $k$ clubs. Each club has an odd number of members and any two clubs have an even number of common members. Prove that $k \leq n$.

HINT: Can you reformulate the problem as a question about linear independence of a list of vectors in some vector space? Feel free to email us for guidance or if you've made partial progress!