

Suppose we live in a world where everyone anyone meets is either a friend or an enemy, and assume that all friendships are reciprocated.

1. How many people would you need to meet to guarantee you have encountered either 3 enemies or 3 friends?
2. Just because you are friends with two people does not mean that they are friends with each other (and similarly for enemies). How many people do you need to have in a room to guarantee there will be at least 3 people who are mutually friends or mutually enemies?