Math 7h

Homework 3: Voting

Due Tuesday, week 4, at the start of class

UCSB 2014

## Homework Problems.

In class, we saw that one natural idea of a "fair" voting system led to some fairly awful situations: the only voting systems we could come up with were dictatorships!

Fix this, as follows: suppose you have a list of **three** options  $\{A, B, C\}$ , and N voters. Create a voting system that (1) has no dictators and (2) satisfies unanimity. Come up with a situation where your voting system fails the independence of irrelevant alternatives condition.

Does your voting system seem like a "good" system to implement? Would you want people to use it?