

Ri Off-the-Shelf Masterclass: The Maths of Voting

Worksheet 4: Deciding on a System

A new country has just been created and you and your group are part of a wider committee that is going to decide on the system that the country will use in its elections.

To decide on what system the state will use, your group will run a mock election and each of the other groups will do the same.

It's really important that everyone maintains their vote throughout, so if you start by voting for red, you must vote red in every election!

Instructions

1. As a group, decide whether you're going to design a new system, adapt an existing system, or pick a random system. Consider and try to come up with a plan for the following:
 - What are the conditions for a candidate to win? And what do you do if these conditions aren't met?
 - What happens if you have a tie between two or more candidates?
 - What happens if your system doesn't result in a winner?
2. Use the ballot handouts provided or design your own ballots using the handout as a template, and write down instructions for the other groups on how they need to vote (i.e., whether they are picking just one colour or ranking them).
3. You are now ready to run your elections. For the mock election, everyone will vote for their favourite primary colour (red, blue, and yellow).
4. Distribute the ballots and instructions to the other groups and ensure you collect them once everyone has voted.
5. Count the votes you collected from the other groups and, using your system, determine which primary colour is the winner.
6. Discuss within your group whether you think the voting system you used should be adopted by the new country. You might consider what were its advantages or disadvantages and to what extent did you think it was a fair, good, or useful system.
7. Once all elections have happened, present the winner of your election to the other groups and briefly describe the voting system you used. Discuss as a committee which system you think the country should use in its elections.