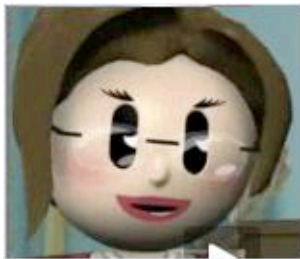
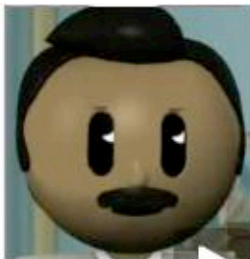


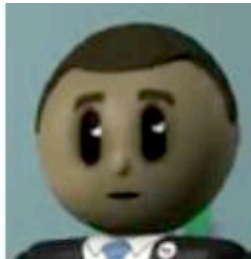
Prepared Ballots for in-class elections



A



B



C



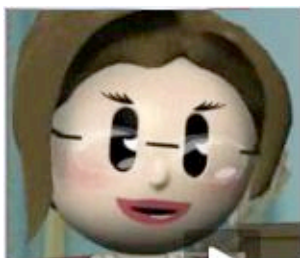
D

First Place _____

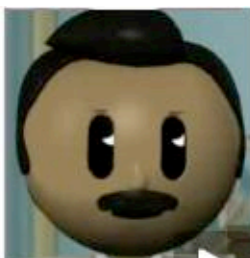
Second Place _____

Third Place _____

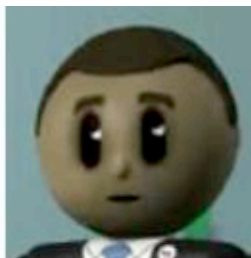
Fourth Place _____



A



B



C



D

First Place _____

Second Place _____

Third Place _____

Fourth Place _____

Second set of data for use in class

						Plurality	1st run-off	2nd run-off	Borda
A	A	A	A	A	A	6	8	Eliminated	39
B	B	C	C	D	D				
C	D	B	D	B	C				
D	C	D	B	C	B				
2	1	3							
B	B	B	B	B	B	5	Eliminated	Eliminated	44 Winner
A	A	C	C	D	D				
C	D	A	D	A	C				
D	C	D	A	C	A				
	2	2	1						
C	C	C	C	C	C	6	9	14 Winner	38
A	A	B	B	D	D				
B	D	A	D	A	B				
D	B	D	A	B	A				
	3	2	1						
D	D	D	D	D	D	9 Winner	9	12	35
A	A	B	B	C	C				
B	C	A	C	A	B				
C	B	C	A	B	A				
		5	2	2					

26 voters
14 for majority

In the video, there was a reference to less than 25% of the population electing the US president. Here are three easy steps to see this for yourself if you do not wish to go through the whole proof or article.

Here is intuition #1: Suppose each state is identical in terms of population and # of electoral votes. Then for 26 states have $(N/2) + 1$ voters vote for the winner and $(N/2) - 1$ vote for the loser, where N is the number of voters in each state. For the remaining 24 states have 100% of the voters vote for the loser. Then slightly more than 25% of the voters select the president in a winner-take-all presidential vote.

Here is intuition #2: Rank order the states with least-populous states at the top and most-populated at the bottom. See http://en.wikipedia.org/wiki/List_of_U.S._states_and_territories_by_population , showing Wyoming at the top with fewest people. Each state gets a number of electors equal to the sum of the number of senators and congressmen in Wash DC. Each state has 2 senators, so the least populous states have more 'voting impact' per capita than most populated states. Starting at the top of this rank-ordered list, do the same thing as Intuition #1: give the 'winner' one more vote than the loser, and continue down the list until you have the number of electoral votes necessary to win. Then , for all remaining states, let 100% of the voters vote for the loser.

Here is intuition #3: From above, you are almost done. But 2 states -- Maine and Colorado, do not use the winner-take-all method. So, you need a very minor 'tweak" for those states.

This approach always gives less than 25% of voters needed to pick the winner