

Quiz 4, Math of Democracy

Fall 2018, Dr. Adam Graham-Squire

Name: _____

Consider the following state with five districts, with these results in an election in 2012:

District	% Democrat	% Republican
1	55	45
2	54	46
3	53	47
4	52	48
5	51	49

1. Calculate the efficiency gap for the election above. Briefly explain who it favors and whether or not it is indicative of gerrymandering.

2. Now suppose that between 2012 and 2014, there was a 10% uniform partisan shift from Democrats to Republicans. Calculate the new percentage votes for Democrats and Republicans in each district in the 2014 election.

District (2012)	% Dem	% Rep
1	55	45
2	54	46
3	53	47
4	52	48
5	51	49

District (2014)	% Dem	% Rep
1		
2		
3		
4		
5		

3. Calculate the efficiency gap for the 2014 election. Briefly explain who it favors and whether or not it is indicative of gerrymandering.

4. In general, what do you believe is more important for an electoral map, a good efficiency gap score or good partisan symmetry? Use your answers from the previous question to support your reasoning, if possible.