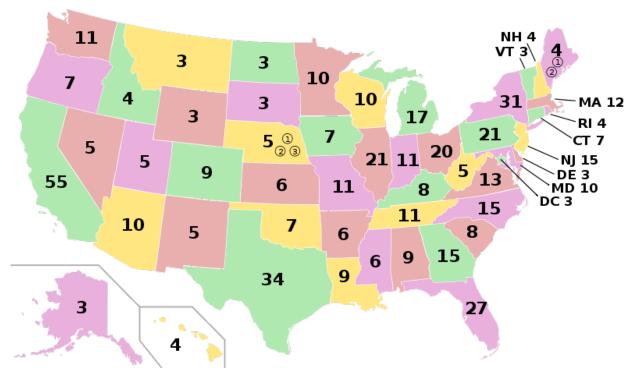
Electoral College and the Popular vote



On November 8th, we will go to the polls and cast a vote for the President and Vice President of the United States. That evening, as the last polls close in Alaska, we will be getting reports about who won the popular vote in the election. But will we really know who won the election?

NO!

When The Constitution of the United States was written in 1787 the method of electing the President was widely debated and considered from many points of view. In order for smaller states to have equal representation, it was suggested that the Congress should elect the President. But then concerns were raised that the balance of powers would be compromised if the Congress elected the President. So it was decided that a group of electors should be chosen by each state, in whatever means that the state decided, and in the same quantity as the state had Congressional members. This group became the Electoral College. The Constitution of the United States says that each state will have members of an Electoral College who will cast the deciding votes in Presidential elections.

- 1. How many Senators does your state get in Congress?
- 2. How many Representatives does your state get in Congress?

Electoral votes are allocated based on the most current Census. This is exactly how the number of Representatives of each state is decided.

- 3. There are 50 states in the U.S. How many Senators are there in Congress?
- 4. There are 538 members of the Electoral College. How many Representatives must there be in Congress?
- 5. To reach a majority of the votes in the Electoral College, what number represents a majority of the Electoral votes?

There are Presidential elections every four years. This year, 2016, we will use the Electoral College numbers that were determined by the 2010 Census.

We found this really cool chart that is supposed to look like the United States, but ...

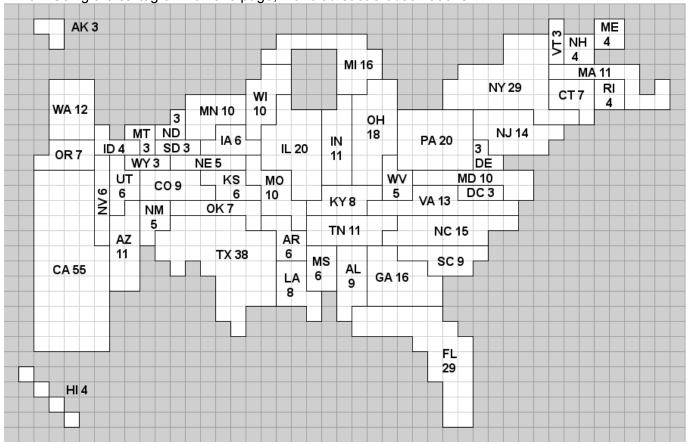
The states aren't the right size (or shape for that matter).

Each state is represented by little squares.

Each square represents one Electoral College vote.

So for instance, since Montana and Wyoming are not very densely populated and have only 1 Representative in the House and of course 2 Senators, those two states look really small in this cartogram because they each only fill 3 squares.

6. Using the cartogram¹ on this page, make at least 5 observations.



We've given you a blank cartogram so that you can color in republican or democratic state wins as the popular state votes are counted. For the most part, state electors vote on a "winner-take-all" basis according to the popular vote.

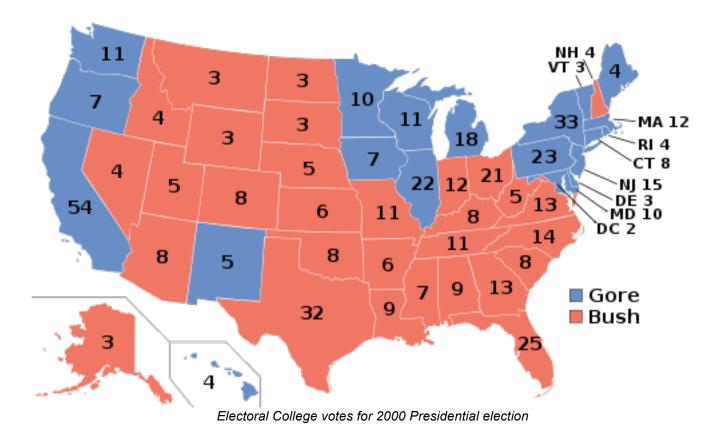
But ...

In the 2000 Presidential election, Republican George W. Bush ran against Democratic, Al Gore. Al Gore received 50,999,897 votes in the popular election. George W. Bush received 50,456,002 votes.

- 7. Who won the popular election?
- 8. Have you ever heard of President Al Gore?

In the 2000 Electoral College, George Bush won 271 electoral votes. Al Gore won 266 electoral votes.

- 9. Who won in the Electoral College vote?
- 10. Who actually won the election?



11. Suppose 1 more state had voted for Gore and not for Bush. Could Gore have won the Electoral vote?

12. How many more votes did Gore need to reach the majority of the Electoral votes?

- 13. I have heard that if neither candidate reaches 270 electoral votes that the election is decided in the House of Representatives. Is it even possible for neither candidate to reach 270 votes? Could this have happened in the Bush/Gore election?
- 14. Check out the Electoral College simulator/map mentioned on our site. You will see that there are states that appear to be a lock for the Democratic candidate and other states that appear to be a lock for whomever is chosen at the Republican convention. Not knowing how the battleground states will go, is it possible for neither candidate in 2016 to reach 270? If so, show how the battleground states must go for each candidate.

Sources for activity:

http://www.archives.gov/federal-register/electoral-college/about.html

http://www.howstuffworks.com/electoral-college.htm

https://en.wikipedia.org/wiki/Electoral_College_(United_States)

https://en.wikipedia.org/wiki/Cartogram

Brought to you by **Yummymath.com**

¹A **cartogram** is a map in which some thematic mapping variable is substituted for land area or distance. Source: http://www.colleyrankings.com/cartogram2010/