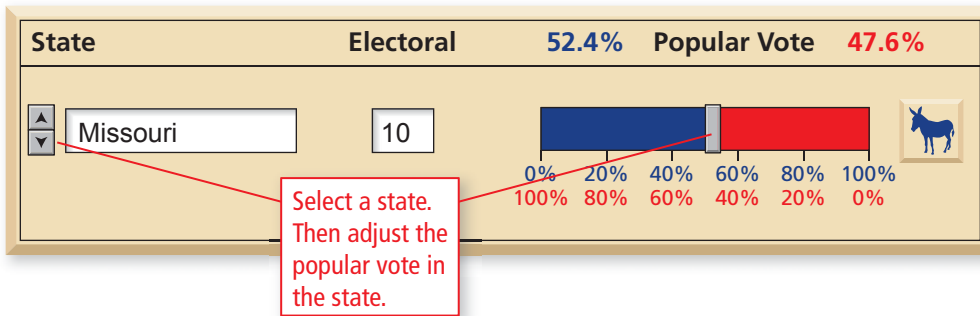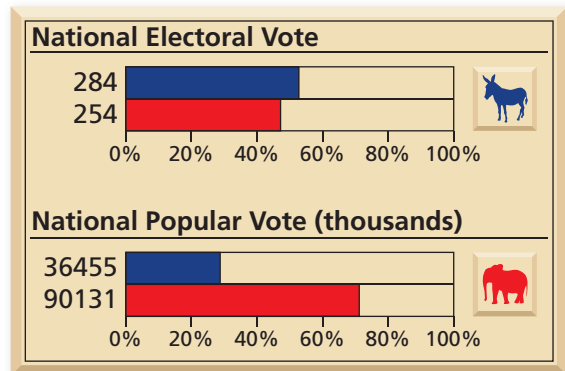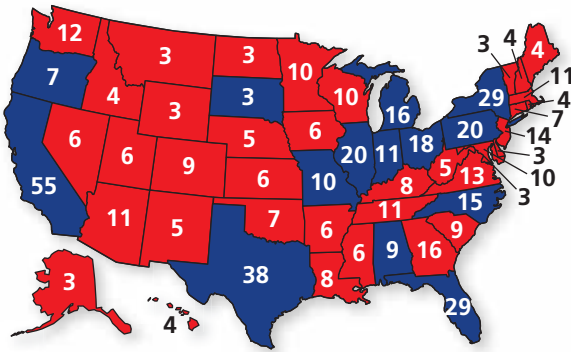# Math & the Electoral College
PROJECT: Modeling a Presidential Election

The Electoral College consists of the electors who formally elect the president of the United States. Since the 1964 election, there have been 538 electors. The map below shows the number of electors for each state. These numbers were determined by the 2010 Census. If a candidate wins the popular vote in a state, he or she gets all the electoral votes for that state.

1. Use the *Electoral College Simulator* at *Math.andYou.com*. It is possible to win the presidential election and not win the popular vote. This has happened four times in the United States (see page 114). The simulator below shows an imaginary election in which the winner receives 52.8% of the electoral votes, but only 28.8% of the popular vote. Use the simulator to find the minimum popular vote that a candidate can receive and still win.

National Electoral Vote

284	
254	

0% 20% 40% 60% 80% 100%

National Popular Vote (thousands)

36455	
90131	

0% 20% 40% 60% 80% 100%

State	Electoral	**52.4%** Popular Vote **47.6%**
Missouri	10	

0% 20% 40% 60% 80% 100%
100% 80% 60% 40% 20% 0%

Select a state. Then adjust the popular vote in the state.

2. Is it possible to become president and not have a single person west of the Mississippi River vote for you? Use the simulator to verify your answer.

3. Is it possible to win the election without carrying one of the "big" states (California, Texas, Florida, New York, Pennsylvania, Illinois, Ohio, Michigan, Georgia)? Use the simulator to verify your answer.

4. Why was the Electoral College created? Do you agree with this system? If not, describe a different system that you think would be better. For instance, do you think the system used in Canada is better? Explain your reasoning.