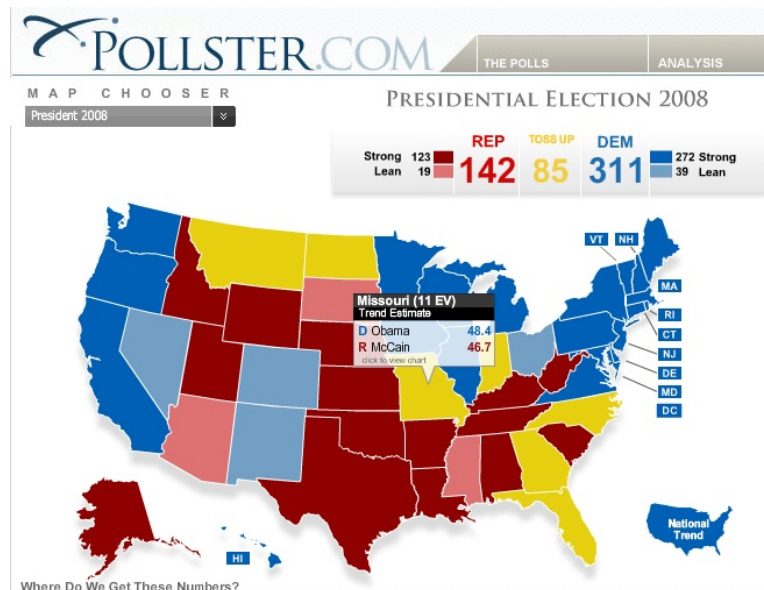


## Confidence Interval for Population Proportion

Name: \_\_\_\_\_



### Oct 30, 2008 POLLSTER.COM reports Missouri to be a toss-up

A poll conducted by Reuters/Zogby on October 26 reports 48.4% in favor of Obama and 46.7% in favor of McCain. The results are based on sampling 600 likely voters.

1. Compute a 95% confidence interval for the proportion of people in Missouri who will vote for Obama. (Note that  $z^* = 1.96$ .)
2. What is the margin of error?
3. How many people would the poll need to sample to reduce the margin of error to 2%?
4. Compute a 95% confidence interval for the proportion of people in Missouri who will vote for McCain.
5. Do you think that Obama has a statistically significant lead over McCain in Missouri? Use your confidence intervals to answer this.