

## STATS 32: Summary statistics for 2016 Elections Data

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**Note:** There are often multiple ways to answer each question.

1. Make a new data frame, `state_df`, that contains votes data at the state level. This new data frame should have 4 columns:
  - a. `state_abbrev`: State abbreviation.
  - b. `votes_dem`: Number of votes for Democratic party.
  - c. `votes_gop`: Number of votes for Republican party.
  - d. `total_votes`: Number of votes in total.

(Hint: Use `group_by` and `summarize`.)

2. Add 2 new columns to `state_df`:
  - a. `diff`: `votes_gop - votes_dem`
  - b. `percent_diff`: `diff / total_votes`
3. What are the top 3 states that voted most Republican (by percentage)?
4. What are the top 3 states that voted most Democratic (by percentage)?
5. Which states had the smallest margin of victory (by percentage)?