

## Section 8.9 — Example

**Problem:** Suppose that I know that the amount of TV watched per day by teenagers ranges from 0 to 10 hours per day. I'd like to estimate the average number of hours of TV watched per day to within 0.5 with 98% confidence, how large should my random sample of teens be?

**Problem:** (Exercise 8.74) A questionnaire is designed to investigate attitudes about political corruption in government. The experimenter would like to survey two different groups - Democrats and Republicans - and compare the responses to various "yes/no" questions for the two groups. The experimenter requires that the sampling error for the difference in the proportion of yes responses for the two groups is no more than  $\pm 3$  percentage points. If the two samples are the same size, how large should the samples be?