

1. A sample of 5,462 eighth-grade students were asked whether or not they actively participate in sports, athletics, or some other form of exercise on a daily basis. A total of 2,998 said yes. Construct a 95% confidence interval to estimate the proportion of students who are active every day.
2. Suppose that in a sample of 100 college students in Colorado, the mean credit card debt was \$646 with a standard deviation of \$208. Use this information to produce a 95% confidence interval for the mean credit card debt of all college students in Colorado.
3. Suppose that a sample of 88 employees at a large company were surveyed and asked how many hours per week they thought the company wasted on unnecessary meetings. The mean number of hours these employees reported was 12.4 with a standard deviation of 5.1. Produce a 95% confidence interval to estimate the mean amount of time all employees at this company believe is wasted on unnecessary meetings each week.