Choose and complete one of the following projects listed below:

Projects that Involve Estimating an Average

The following projects will use a one-sample t 95% or 99% confidence interval to estimate an average.

1. Measure and record your resting heart rate each day. Use this data to estimate your average resting heart rate in beats per minute.

2. Count and record the number text messages you send each day. Use this data to estimate the average number of text messages you send per day.

3. Measure and record how many hours of sleep you get each day. Use this data to estimate the average number of hours of sleep you get each day.

4. Take a random sample of English-language Wikipedia articles and record the word count of the main text in the article. (Do not include the "references" section or any side-panel links.) Use this data to estimate the average word count of English-language articles. You will need to collect a minimum of 100 data points. (You may use Wikipedia's random article feature to collect your sample.)

5. Take a random sample of English-language Wikipedia articles and record how many other languages each article is available in. Use the data to estimate the average number of additional languages English-language Wikipedia articles are also available in. You will need to collect a minimum of 100 data points. (You may use Wikipedia's random article feature to collect your sample.)

Projects that Involve Estimating a Proportion (Percentage)

The following projects will use a one-sample z 95% or 99% confidence interval to estimate a proportion (percentage).

6. Stand a nickel (5-cent coin in U.S. currency) on its edge on a hard, flat surface. Pound the surface with your hand so that the nickel falls over. Out of at least 200 trials, record the number of times the nickel comes up heads. Use this data to estimate the proportion of times this will happen.

7. First noticed sometime around 2008, an internet phenomenon says that if you go to a random article on Wikipedia and keep clicking the first non-parenthesized link in the body text of each successive article, you'll eventually end up at the article on Philosophy. This isn't entirely true. Rather, this will happen a certain proportion of the time. Try this on a random sample of Wikipedia articles. Out of at least 300 randomly chosen articles, record the number of times you "get to philosophy." Using this data, estimate the true proportion of time this will happen for a randomly chosen article.