From one sample + some statistical knowledge, we can calculate probabilities.

* The sampling distribution’s standard deviation is the standard error of the mean
* Alpha as amount of uncertainty we’re willing to live with when we estimate a parameter.
* Confidence is the amount of certainty we have when we estimate a parameter

Steps to find confidence limits:

1. Decide on a confidence level (We’ll use 95%)
2. Calculate statistics (sample mean, standard deviation, standard error of the mean)

Two sample t-test and p-value

What is the probability of getting something as extreme as we got?