Practice Problems for simulation homework

1. hypothesis test on a single population proportion

**Example from lecture:**

**Given 13 successes out of 25. Hypothesize that the actual proportion is greater than 0.4.** Test the hypothesis and find a p-value.

1. confidence interval for a single population proportion

**Example from lecture: 13 successes out of 25. Construct a 90% confidence interval for the population proportion.**

**Example 1: We have a random sample from a population where the sample size is 52 and the number of successes is 31. Find a 90% confidence interval for the population proportion.**

1. hypothesis test on a difference of two independent proportions

**Example 2: We have random samples from two populations and we want to test the claim that the population proportion in Population A is larger than the population proportion in Population B. In the sample from population A, there are 22 successes from 88 trials. In the sample from population B, there are 15 successes from 68 trials. Write the hypotheses and use StatKey to find the p-value.**

1. confidence interval for the difference of two independent proportions

**We can find the confidence interval for the difference in A and B given above, at 90% confidence.**