# Stat 185 - In class problems
## Wednesday, October 18

1. In a random sample of 333 North Carolinians, I find that 112 of them exercise regularly.

   (a) What is the standard error associated with this measurement?

   (b) Write down a 95% confidence interval for the proportion of North Carolinians who exercise regularly based on this data.

   (c) What is an interpretation of this confidence interval?

   (d) Would a 90% confidence interval based on the same data be larger or smaller?

2. As a struggling college professor, I work odd jobs every weekend. On average, I can make \$215 a weekend, with a standard deviation of \$57. I do this almost every weekend, taking only two weekends off per year.

   (a) How much extra money can I expect to make like this over the course of two years?

   (b) What's the probability that I make more than \$25000 over the course of two years?

   (c) How much might I make on a really good weekend - let's say top 10%?