**Notes to find a 95% confidence interval:**

In a survey of 40 randomly selected people, 24 reported that they are scared of snakes. Create a 95% confidence interval of all people that are afraid of spiders.

1. Find p (percent of people afraid) p=24/40 = 60% or .6
2. Find standard deviation:
3. 95% confidence interval
4. Evaluate: 44.4% - 75.6% We are 95% confident that the true proportion of all people that are scared of spiders is between 44.4% and 75.6%.

In a survey of 40 randomly selected people, the average amount of calories they ate in a day is 2420 and the standard deviation was 420 calories.

1. Find standard deviation of averages of 40 people:
2. 95% confidence interval
3. Evaluate: 2287.18 - 2552.81. We are 95% confident that the true number of all people eat between 2287.18 - 2552.81 calories a day.