Name: _____ Hour: _____ Date: _____

4-step practice questions

1. Suppose we are interested in finding out the proportion of the population at EKHS that has seen The Office. We contact an SRS of 100 students in the school. Of these 100 students, 63 report seeing The Office. Find a 95% confidence interval for the true proportion of EKHS students who have seen The Office.

2. Mr. Wilcox has done over 50 track days at Gingerman Raceway in South Haven Michigan. He keeps track of each lap time (in seconds) and has found that they follow an approximately normal distribution. A random sample of 9 laps shows a mean laptime of $\bar{x}$ = 102.4 seconds with a standard deviation of s_x = 3.2 seconds. Create a 90% confidence interval for Mr. Wilcox's career average lap time.

3. Mrs. Gallas was an all-star basketball player in high school. To prove that she still has skills, she took 50 free throws and made 31 of them. Think of these 50 shots as being a random sample of all the free throws she has ever taken. Find a 99% confidence interval for the true proportion of free throws Mrs. Gallas would make.