

**ECO240 HW Questions for Chapter 7 " Confidence Interval Estimation: One Population", part2  
(Questions for C.I. Estimation for Population Proportion, Large Samples)**

7.32. Find the confidence interval for estimating the population proportion for the following:

- a. 92.5% confidence level;  $n = 650, \hat{p} = 0.10$ .
- b. 99% confidence level;  $n = 140, \hat{p} = 0.01$ .
- c.  $\alpha = 0.09; n = 365; \hat{p} = 0.50$

7.33. Suppose that a random sample of 142 graduate admissions personnel was asked what role scores on standardized tests (such as the GMAT or GRE) play in the consideration of a candidate for graduate schools. Of these sample members 87 answered "very important." Find a 95% confidence interval for the population proportion of graduate admissions personnel with this view.

7.39. In a presidential election year, candidates want to know how voters in various parts of the country will vote. | Suppose that 420 registered voters in the Northeast are asked if they would vote for a particular candidate if the election were held today. From this sample 223 indicated that they would vote for this particular candidate. What is the margin of error? Determine the 95% confidence interval estimate of this candidate's support in the Northeast.

7.41. It is important for airlines to follow the published scheduled departure times of flights. Suppose that one airline that recently sampled the records of 246 flights originating in Orlando found that 10 flights were delayed for server weather, 4 flights were delayed for maintenance concerns, and all the other flights were on time.

- a. Estimate the percentage of on-time departures using a 98% confidence level.
- b. Estimate the percentage of flights delayed for severe weather using a 98% confidence level.