



- e) What do you notice about the relationship between whether a hypothesized value is in a confidence interval and whether it is rejected?
- f) Calculate the test statistic, then use technology to find a  $P$ -value for a two-sided test of whether the population proportion differs from 0.725.
- g) Would you reject the hypothesis that the population proportion who lean to the right is 0.725 at the 0.10 level? What about the 0.01 level?  
0.10 level: \_\_\_\_\_ 0.01 level: \_\_\_\_\_
- h) Fill in the final row of the table in part d. Elaborate on what you answered in part e, about the relationship between whether a hypothesized value is in a confidence interval and whether it is rejected. In particular, how does your test decision for a particular level of  $\alpha$  relate to the confidence level?

Confidence intervals and tests of significance are complementary procedures. Whereas tests of significance can establish strong evidence that a parameter differs from a hypothesized value, confidence intervals estimate the magnitude of that difference.