Community Arts Center Survey

A community arts center surveyed a random sample of the town's residents about whether they would be interested in seeing a musical at the center each month. Use the information in the photo for Problems 10 and 11.

Of the 160 residents surveyed, 35% said they would be interested in seeing monthly musicals.

10. What is a 95% confidence interval for the proportion p of town residents who are interested in seeing monthly musicals? What is a 99% confidence interval for this proportion?

11. Is it reasonably likely that a majority of the town's residents are interested in seeing monthly musicals? Explain.

10. **95% confidence interval: $0.28 \leq p \leq 0.42$; 99% confidence interval: $0.25 \leq p \leq 0.45$**

11. **no; Any population proportion $p > 0.5$ is outside both the 95% and 99% confidence interval, so it is unlikely that a moajority of residents are interested in seeing monthly musicals.**